

# CDU - 3908

## 4D Color Doppler Ultrasound



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

**Analytical Technologies Limited**

An ISO 9001 Certified Company

[www.analyticalgroup.net](http://www.analyticalgroup.net)

## ▶▶ APPLICATION

Abdomen / Cardiac / Obstetrics / Gynecology / Urology / Andrology / Small Parts / Vascular / Pediatrics / Musculoskeletal , etc.

## ▶▶ ELECTRICAL POWER

|           |             |
|-----------|-------------|
| Voltage   | 100 V~240 V |
| Power     | DC12.8V 3A  |
| Frequency | 50/60 Hz    |

## ▶▶ CONNECTIVITY/MEDIA/PERIPHERALS

|                   |   |
|-------------------|---|
| Transducer Ports  | 4   |
| USB Ports         | 2   |
| Hard Disc         | 128GB (SSD), 200GB SSD (Optional)             |
| Ethernet Port     | 2(100Mb/1000Mb)                               |
| External Display  | VGA,HDMI,                                     |
| Printer(Optional) | Video Printer, Laser Printer, Thermal Printer |
| Printing Area     | Image, report, Image+report                   |

## ▶▶ CINE/IMAGE MEMORY

|                       |                  |
|-----------------------|------------------|
| Cine Memory           | 1200 frame (max) |
| Cine Review Speed     | 1, 2, 4, 8       |
| Cine Review Loop      | YES              |
| Cine Capture Function | YES              |

## ▶▶ DICOM CONNECTIVITY

DICOM3.0 Compliant

## ▶▶ IMAGE STORAGE

Storage Format: PNG, AVI, BMP, JPEG, DICOM

Export Video Format: AVI

Export Image Format: PNG, JPEG, BMP, DICOM

USB Flash Drive

## ▶▶ TECHNOLOGY

|                                      |
|--------------------------------------|
| Panoramic Imaging Tech               |
| All-digital signal processing Tech   |
| Multi-beam formation Tech            |
| Speckle Reduction Tech               |
| Tissue Harmonic Imaging Tech         |
| Dynamic Tissue Optimization Tech     |
| Duplex & Triplex Synchronous Display |
| Directional Power Doppler            |
| Imaging Parameters Preset            |
| Tissue Special Image                 |
| PW Auto Trace                        |
| Update in line                       |
| CF+B mode in one screen              |
| Complex Model Imaging                |
| IMT auto measurements                |
| Virtual convex array                 |
| Trapezoidal imaging                  |
| TDI function                         |
| CW , PW software                     |

## ▶▶ GENERAL PERFORMANCE

|                             |                       |
|-----------------------------|-----------------------|
| Digital Broadband           | 12288 channels        |
| Beam-former                 | Re-programmable       |
| Transmit Voltage            | Adjustable (15 steps) |
| Beam-former Frequency Range | 1~40 MHz              |

## ▶▶ PAN/ZOOM

Real-Time Image Zoom, Zoom Range: 100%~400%, Up/Down/Left/Right Inversion

## ▶▶ HARDWARE SPECIFICATION

### LED Monitor

|                 |                                    |
|-----------------|------------------------------------|
| Size (Diagonal) | <b>19"</b>                         |
| Contrast Ratio  | 800:1                              |
| Resolution      | 1024×768 pixels                    |
| Brightness      | 230 cd/m <sup>2</sup>              |
| Color Depth     | 24bit                              |
| Rotate Angle    | ± 90°                              |
| Grey Levels     | 256                                |
| Software        | <b>4D software, PW/CW software</b> |

### Embedded Speakers

Impedance: 4Ω

Power: 5 W

### UPS (Optional)

## ▶▶ IMAGING PERFORMANCE

| Probe     | Convex Probe                                | Linear Probe                                    | Intra-Cavity Probe                             | Micro-convex probe   | 4D volume probe                                      | Phased array probe                               |
|-----------|---|---|--|--|--|--|
| Frequency | Central 3.5 MHz<br>(2.0/3.0/3.5/4.0/5.5MHz) | Central 7.5 MHz<br>(6.0/6.5/7.5, 10.0/12.0 MHz) | Central 6.5 MHz<br>(5.0/6.0/6.5 / 7.5 /9.0MHz) | Central 4.0 MHz<br>(2.0/3.0, 3.5/4.0/5.0/6.0/6.5 /7.5/9.0MHz ) | Central 3.5 MHz<br>(2.0, 3.0, 3.5, 4.0, 5.5, 6.5MHz) | (2.0/3.0, 3.5/4.0/5.0/6.0/6.5 /7.5/9.0/10.0MHz ) |
|           |   |   |  | <b>pediatric use</b>   |  |  |
|           |   |   |  | (2.0/3.0, 3.5/4.0/5.5, 6.5/7.5/10.0 MHz)                       |  |  |
| Pitch     | 0.516mm                                     | 0.352mm   | 0.216 mm                                       |  |  |  |
| Radii     | 60mm  | N/A   | 10 mm  |  |  |  |
| Elements  | 128   | 128   | 128  | 128  | 128  | 128  |

## ►► USER INTERFACE

|  |
|--|
| User Permission setting  |
| Intuitive Windows-based operating principles   |
| User-Centric control panel with Home Base layout and control customization                                       |
| On/Off task light and back-lit illumination of control panel   |
| Variable brightness indicates active state of function keys  |
| Easily accessible, full size QWERTY keyboard for text entry, function keys and system programming                |
| Cine Playback, Multiple Arrows, Configurable Worksheets, Exam Review, Pictograms (Body Marks), System Setup Menu |
| On line attention function, tell the user how to operate in the next step  |

## ►► IMAGING MODES

B, 2B, 4B, M, B/M, B/C, B/D, B/C/D, B/CFM/D, PDI Color, DPDI Color, Dual Color, Simultaneous 2D/-Color Compound, PW, CW, Duplex/Triplex, CFM, CDE, PD, Directional PD, CD, B+CF

## B-MODE

|                               |            |
|-------------------------------|------------|
| Maps                          | 17         |
| Focus Count                   | Max. 4     |
| Gain                          | 0~255      |
| TGC                           | 8 Sliders  |
| Dynamic Range                 | 0~150dB    |
| Depth                         | Max. 30cm  |
| Acoustic Power                | 0 ~ 15     |
| Chroma                        | 0~7        |
| Grayscale Levels              | 256        |
| Frame Rate                    | Max.1028Hz |
| Persistence/ Frame Average    | Up to 7    |
| Image Optimization            | 0~6        |
| Top/Bottom/Left/Right Reverse | Yes        |
| Speckle Reduction             | Yes        |
| Second Harmonics              | Yes        |

## M-Mode

|                    |  |
|--------------------|--|
| Maps               | 16   |
| Chroma             | 16   |
| Sweep Speed        | 3  |
| Gain               | 0~255  |
| Distance           | Point-to-Point   |
| Max Steer Angle    | 15°  |
| Diameter Reduction | Point-to-Point Heart Rate/Time/Distance/Slope<br>Side-by-Side/Bottom |

## Color Mode

|                           |                                       |
|---------------------------|---------------------------------------|
| Gain                      | 0~255                                 |
| Color Maps                | 0~6                                   |
| Doppler Steer Angles      | 7 Steps                               |
| Wall Filter               | 0~3                                   |
| Spatial Filtering         | 0~3                                   |
| Acoustical Power          | 0 ~ 15                                |
| Doppler Multi-Frequency   | 2MHz~10MHz                            |
| Line Density Max          | 256 Lines                             |
| Persistence/Frame Average | 0~7                                   |
| Bloodstream Gain          | 0~127                                 |
| Packet Size               | 8~15 Baseline/Invert/Color ROI/M-Mode |

## PW Mode

|                            |            |
|----------------------------|------------|
| Gain                       | 0~255      |
| D Linear Velocity          | 0~2        |
| Doppler Steer Angles       | 7 Steps    |
| Edge Enhancement           | 0~7        |
| Wall Filtering             | 0~3        |
| Audio                      | 0~255      |
| Correction Angle           | 80°/-80°   |
| Doppler Multi-Frequency    | 2MHz~10MHz |
| Pulse Repetition Frequency | 2khz~6khz  |
| Chroma                     | 0~7        |
| Baseline Adjustment        | 0~6        |
| Three Synchronizations     | Yes        |
| Spectrum Inversion         | Yes        |

## ►► MEASUREMENTS SPECIFICATIONS

### Analysis Packages

Basic, Obstetrics, Gynecology, Urology, Andrology, Cardiac, Peripheral Vascular Venous, Small Parts, Orthopedic

### Basic Measurement

|                          |   |
|--------------------------|---|
| B-mode basic measurement | Distance, Angle, Perimeter and Area (ellipse or track-based method), Volume, Histogram, Sectional Map |
| M-mode basic measurement | Heart Rate, Time, Distance, Speed   |

## OBSTETRICS

Applicable to multiple birth measurements.

All general measurements and calculations

Obstetrical data versions to calculate gestational age:

- Two fixed data revisions: Asia & Europe
- One editable data version: User Custom
- Each version can estimate the gestational age and expected date of confinement based on measured gestational sac (GS), biparietal diameter (BPD), crown-rump length (CRL), femur length (FL), humeral length (HL), abdominal transverse diameter (ATD), vertebral length (LV), occipitofrontal diameter (OFD), abdominal circumference (AC) and head circumference (HC)

Obstetrical Report

Amniotic Fluid Index (AFI)

BPD/OFD, FL/AC, FL/BPD and HC/AC ratio

Estimate Weight Of Fetus

Gestational Age

Expected Date Of Confinement (LMP/BBT)

Fetal Biophysical Score

Fetus Growth Curve

## Gynecology

All general measurements and calculations

Uterus, Ovary, Follicle

Gynecology Report

## Urology

All general measurements and calculations

Kidney, Bladder, Residual Urine Volume

Urology Report

## Andrology

All general measurements and calculations

Prostate, Testis

Prostate Specific Antigen (PSA)

Prostate Specific Antigen Density (PSAD)

Andrology report

## Small Parts

All general measurements and calculations

Thyroid, Mammary Gland, Nodule

Small Parts Report

## Cardiac

All general measurements and calculations

Heart Rate

Blood Flow Rate

Left Ventricle

Aorta

Mitral Valve

Ventricle (left/right)

Area Stenosis (% area Sten)

Vascular Diameter Stenosis (% Diam Sten)

Body Surface Area (BSA)

Cardiac Report



## Peripheral Vascular

All general measurements and calculations

Area Stenosis

Vessel Diameter Stenosis

Peripheral Vascular Report

IMT auto measurements

## Venous

All general measurements and calculations

Right and left extremity measurements

Venous patient report

## Orthopedic

All general measurements and calculations

Right and left hip angle measurement

Hip angle patient report

## HPLC Servicing, Validation, Trainings and Preventive Maintenance :

**HPLC Servicing** :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

**Trainings** :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

**AMC's/CMC** :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

**Validations** :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

**Instruments** :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



## About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

## Our Products & Technologies



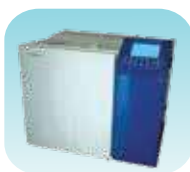
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Spectro 2080+  
Double Beam



Infra FTIR



Optima Gas  
Chromatograph  
3007



Optima Gas  
Chromatograph  
2979 Plus



Flash  
Chromatograph



Atomic Absorption  
Spectrophotometer



Liquid Particle  
Counter



Optical Emission  
Spectrophotometer



DSC/TGA



Semi Auto Bio  
Chemistry Analyzer



HEMA 2062  
Hematology  
Analyzer



Micro Plate  
Reader/Washer



URINOVA 2800  
Urine Analyzer



Total Organic  
Carbon 3800



Fully Automated  
CLIA



NOVA-2100  
Chemistry Analyzer



PCR/Gradient PCR/  
RTPCR



TOC  
Analyzer



Laser Particle  
Size Analyzer



Ion Chromatograph



Water purification  
system

## Regulatory compliances



## Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



# Analytical Foundation

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at [Info@analyticalfoundation.org](mailto:Info@analyticalfoundation.org)

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.



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