

RIMED 
For your peace of mind

Accurate and Reliable Cerebrovascular Diagnosis & Monitoring

Since 1982



Digi-Lite™

The next generation in Digital Transcranial
Doppler Ultrasonography

The Latest Technology

- Digi-Lite™ is a Digital Transcranial Doppler (TCD) System with an advanced and proprietary M-Mode display. The product is based on the latest technology in digital electronics and software design.
- Digi-Lite™ provides a complete diagnostic solution for the modern Neurosonology or Neurovascular laboratory.
- Digi-Lite™ measures the blood flow velocity in the main arteries of the brain, non-invasively, facilitating the detection of stenosis and emboli flowing in the blood stream.

Digi-Lite™ Key Features & Benefits

- Product is user-friendly, intuitive and simple to operate.
- Offers an optional imaging probe for complete and accurate color-coded ultrasound scanning of the Carotid system.
- Each 2 Mhz probe can isonate the brain in 64 different depths/gates at the same time, displaying 8 different Doppler spectrum windows simultaneously.
- Short examination time and increased probability to detect pathologies.
- Includes an advanced 2-layer, user-configured reporting system:

Summary Screen enabling the immediate comparison between the right and the left sides of the brain.

Final Patient Report includes several segments and provides a detailed and customizable comprehensive "picture" for the referring physician.

- A complete array of monitoring studies including a Vasomotor Reactivity Test (VMR) and CO2 Reactivity Test Studies can be saved and easily replayed on the Digi-Lite™ hard disk.
- Dedicated and well established emboli detection software.
- Can detect flow velocity at the contra- lateral side of the brain with its high Doppler sensitivity.
- Fully portable and mobile machine enabling operation through the touch screen alone.
- Offers a complete range of probes including 2 Mhz, 4 Mhz, 8 Mhz and 16 Mhz probes, each with a separate connector.

3/2/2010 Rimed Hospital
Brain Department
Dr. Rimed

TCD Examination: Intracranial Unilateral

Patient Details:

Examination Date and Time: 3/2/2010 13:01
 ID: 34565623 Last Name: Jones Middle Name: First Name: D
 Sex: Male Age: 30
 Home Phone: Cellular Phone: Work Phone: E-Mail: Address:
 Referred By: Reason For Examination:

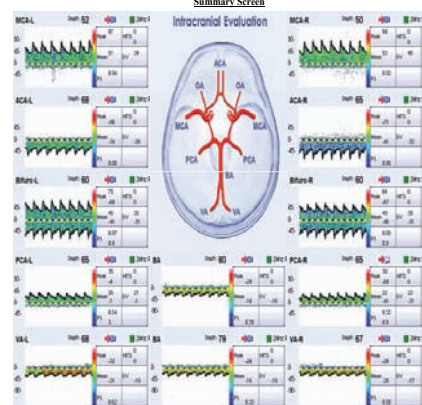
Patient History:

Smoking: Yes CVA: No Symptomatic Carotid Stenosis: No
 Hyperten: No Atrial Fibrillation: No Asymptomatic Carotid Stenosis: No
 TIA: No Coronary By Pass: No Prosthetic Heart Valves: No
 Arrhythmic: No

Examination History:

Date	Time	Type
3/2/2010	13:01	Intracranial Unilateral
3/2/2010	11:33	Intracranial Unilateral
3/2/2010	11:37	Intracranial Unilateral
3/2/2010	11:48	Intracranial Unilateral
3/2/2010	11:50	Intracranial Unilateral

Summary Screen



	Left Side					Right Side							
	Depth (mm)	Peak (cm/sec)	Mean (cm/sec)	P.I. ratio	HITS (cm/sec)	DV (cm/sec)	Depth (mm)	Peak (cm/sec)	Mean (cm/sec)	P.I. ratio		HITS (cm/sec)	DV (cm/sec)
MCA	52	87	51	0.94		39	50	89	53	0.92		40	MCA
ACA	68	56	34	0.88		-26	65	71	41	0.95		-32	ACA
Bifurc	60	75	46	0.87		35	60	64	40	0.85		30	Bifurc
PCA	65	68	41	0.9		-31	65	67	40	0.9		-31	PCA
VA	65	35	26	0.54		21	65	30	22	0.32		-23	PCA
	68	-4	-1	3		-1	65	-68	-41	0.9		-31	PCA
VA	68	-32	-21	0.62		-19	67	-28	-20	0.55		-17	VA

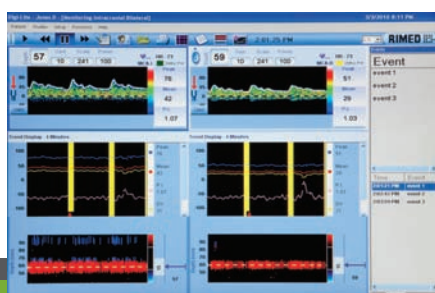
	Middle					
	Depth (mm)	Peak (cm/sec)	Mean (cm/sec)	P.I. ratio	HITS (cm/sec)	DV (cm/sec)
BA	80	-29	-18	0.78		-15
BA	79	-24	-15	0.33		-19

Indication
3/2/2010 1:21:35 PM - normal values on all blood vessels

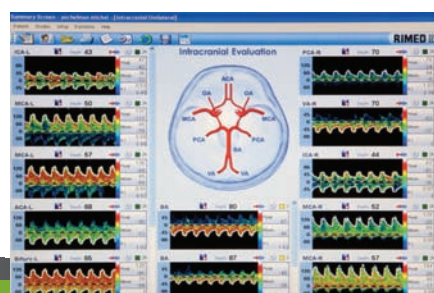
Interpretation

Signature:

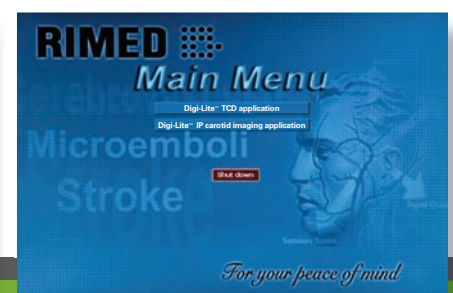
Final patient report



Monitoring intracranial bilateral



Summary screen - elevated velocities



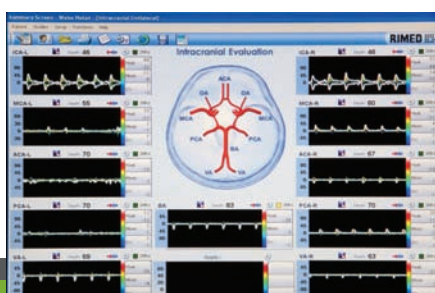
Main menu

Clinical Applications

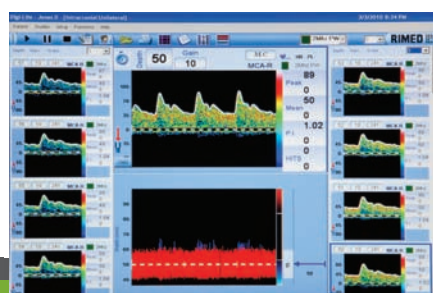
The Digi-Lite™ offers a complete array of dedicated studies to address the following clinical applications:

- Diagnosis of extracranial and intracranial stenosis and occlusion.
- Detection and monitoring of vasospasm following aneurismal subarachnoid hemorrhage.
- Detection of Patent Foramen Ovale (PFO) and Right to Left Shunts (RLS).
- Detection and counting of emboli.
- Evaluation of the brain vasomotor reserve.
- Support for brain death diagnosis.
- Monitoring during carotid endarterectomy or carotid stenting.
- Monitoring during coronary artery bypass grafting.
- Monitoring during tPA treatment for acute stroke patients, identifying the point in time at which recanalization occurs.
- Screening children with sickle cell disease.

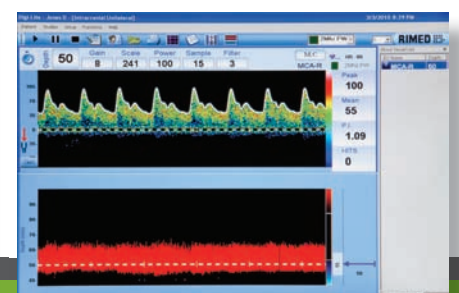
Capnograph for VMR study



Summary screen- brain death



8 spectra unilateral



Unilateral with single spectrum & M-Mode



Digi-Lite™ IP - the Carotid Ultrasound Imaging Probe

The Digi-Lite™ offers an optional add-on imaging probe.

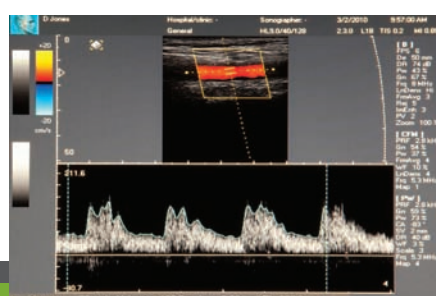
The probe allows the physician to scan the Carotid system (CCA, ECA, ICA) in a complete triplex mode including B&W (anatomy), color doppler super imposed on it and a Doppler spectrum waveform.

Digi-Lite™ IP - Key Features:

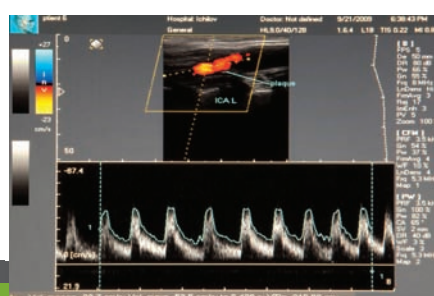
- High resolution imaging
- Compact and easy to operate
- Software Integrated into Digi-Lite™
- Software controlled probe frequency range: 10-5 Mhz
- A linear array 128 elements probe

With this unique integrated imaging probe, the Digi-Lite™ offers, at a fraction of the cost of a standard ultrasound machine, a comprehensive solution for the modern Neurosonology lab.

The integrated imaging probe enables physicians to perform a complete array of studies for the diagnosis of both the extracranial & intracranial blood vessels.



Normal CCA



ICA with plaque



Bifurcation

Probe Holder LMY-2™

The LMY-2™, Rimed's 3rd generation probe holder, is based on an innovative mechanism enabling the Doppler probe to be easily aligned and locked, offering maximal stability and transforming Transcranial Doppler (TCD) monitoring into an easy procedure.

LMY-2™ Key Features & Benefits

- Easy to use "one click" operation.
- Once the probe direction is aligned to receive the max. Doppler signal, a single click locks the whole mechanism in place, preventing the probe from moving.
- Made of medical grade plastics, can be utilized in X-ray, angiographic and stenting procedures.
- Especially suitable for Carotid Endarterectomy, Cardio-Vascular surgery and emboli detection counting procedure.
- The only fixation device enabling pressure regulation of the probe to the skull after the probe is locked.
- Probe holder is offered as a unilateral or bilateral fixation device.



Technical Specifications

Digi-Lite™ configurations

The Digi-Lite™ is offered in 2 basic configurations:

- Digi-Lite™ 1 channel unilateral with 2 Mhz probe for diagnosis.
- Digi-Lite™ 2 channels bilateral with 2X 2 Mhz probes for both diagnosis and monitoring.

Doppler	
True Digital Doppler with M-Mode	
M-Mode	64 gates per channel
Max. gates	320
Probes	2 Mhz (PW), 4 Mhz (CW/PW), 8 Mhz (CW/PW) , 16 Mhz (PW)
Probes supported by M-Mode	2,4,8,16 Mhz
Optional Imaging probe	(DL IP) linear 5-10 Mhz
Multi-gating	up to 8 spectral windows
Max. detectable velocity at 2 Mhz	964 cm/sec
No. of probe connectors	5
Full record & replay of Spectrum+Sound+M-Mode	
Display	
• 15" color TFT LCD internal	
• Touch screen	
PC	
Operating system	Windows XP™
RAM	1 GB
Hard disk	160 GB or higher
Connectivity	3 USB ports, LAN
Reports 2-layer	
Can be exported as Excel, PDF, Word, RTF	
• Interactive summary screen	
• Final patient report	
Inputs/Outputs	
Analog inputs	8
Analog outputs	8
Dedicated studies	
Main diagnostic software both intracranial and extracranial	
Monitoring software 1 or 2 channels	
Vasomotor Reactivity (VMR) CO2 or Diamox based	
Evoked flow	
Intra-operative 16 Mhz software	
Peripheral	
Review station	
Carotid imaging (DL IP) software	
Regulatory	
Certified ISO 13485:2003	
CE 0473	
Safety class I type BF, MDD class IIa, EN 60601-1, EN 60601-1-2	
Power supply: AC 50/60 Hz wide range 100-240 V medical grade	
Printer	
Any Windows XP compatible printer	
Portable + Dedicated carrying case - weight	7 kg



Company Profile

Rimed was established in 1982. Since then the company has been developing manufacturing and exporting 6 generations of non-invasive Vascular & Transcranial Doppler systems.

Rimed introduced into the market the first PC-based Peripheral Vascular Doppler and was also the first to introduce the customizable "summary screen" concept which has since been adopted by other companies.

The company now offers a new line of digital transcranial Dopplers with M-Mode as well as an integrated carotid Imaging Probe. With over 3,000 installations worldwide, mainly in neurology departments and stroke units, Rimed has become a reputable brand name in the field of transcranial Doppler (TCD) technology.

Rimed's line of products carry all international certificates: CE, ISO 13485:2003, FDA, SFDA.

Rimed's long standing expertise, knowhow and financial stability, over the past 3 decades, has made it the dynamic and innovative company it has become, developing advanced diagnostic tools at the forefront of medical technology.



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