

RTI Electronics Means Solutions

Emphasis on innovation, accuracy, dependability and efficiency

It may have looked like a day at the beach – but in Chicago in the beginning of December? That was the picture you saw as you stopped by the RTI Electronics display during RSNA 2009.

The tropical attire, the blue shades, and the free bottles of “Ocean” drinking water were all part of the excitement that surrounded the announcement by RTI Electronics of its new products and the numerous enhancements to the existing RTI product line of x-ray QA solutions.

This issue of the EDGE will give an overview of some of the solutions from RTI Electronics that were highlighted during the recent “day at the beach” at RSNA 2009. With the RTI Electronics solutions for 2010, you see a continual emphasis on innovation, accuracy, dependability, and efficiency.

Using the RSNA as a stage, RTI Electronics introduced the NOVA – an X-ray /Light Field Alignment Tool – as its “all-in-one” solution with documentation capability. Innovative in concept, the NOVA can be used with Rad, Fluoro, Mam and CT and does it with sub 1 millimeter accuracy.

The T-20 (Translucent Detector) is a truly unique RTI solution. The T-20 solid state detector is designed specifically for measurements on Rad/Fluoroscopic systems when it is crucial that the detector itself does not affect the system output nor disturb the AEC system. Measurements like this were always done with an ion chamber. Now, RTI has created the ideal solid state solution.

Enhancements to existing products are also part of the 2010 RTI line-up. Innovative solutions include improved carrying cases (light-weight and yet durable) for the Piranha X-ray multi-meters. These options make it possible for all the Piranha supplies and accessories



RTI Personnel dressed the part for promoting the new Ocean database software during the 2009 RSNA in Chicago. Visitors to the RTI display not only got a brief demo of the new software, scheduled for release in June of 2010, but a splash of RTI “Ocean” water as well.

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to be stored and transported safely and efficiently.

Dependability is emphasized as well. Now every new Barracuda and Piranha delivered is backed by a 2-year manufacturer’s warranty. This is coupled with the industry leading 2-year calibration cycle recommendation. Better yet, RTI can extend your original factory warranty on your new meter for up to 10 years!

With the introduction of the new Ocean software, efficiency and “ease of use” will be part of this new software solution. Due for release in June 2010, Ocean is a database, a real time display, and a whole lot more. Ocean can also interface with Excel, Open Office or other data sheets as well. Ocean can be tailored to the beginner or expert user – whether you need measurement templates with analysis and a database or just real time display. Your Piranha or Barracuda just became a more efficient and valuable QA test tool.

Please take a few moments and see what RTI solutions might be helpful for you. As always, RTI will be glad to provide additional information and on-site demonstrations.



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Medbaltica
Riga, Latvia, 13–15 May

SFPM
Bordeaux, France,
19–21 May 2010

ACMP
San Antonio, TX, May 22–25

UKRC
Birmingham, England,
7–9 June 2010

AAMI
Tampa, FL June 26–28

AAPM
Philadelphia, PA July 18–22

EDGE Newsletter is published three times per year by RTI Electronics. If you would like more information or have questions on any of the products featured in this issue, feel free to contact us at our head office in Sweden, Monday thru Friday 8:00 a.m. to 4:00 p.m. EST. E-mail to: sales@rti.se. Call us at: +46 (0) 31 746 36 00

QA Browser Software, an Efficient Solution

When you order your RTI Piranha or Barracuda, you have the choice to include a PDA with your multimeter. The use of the PDA provides wireless Bluetooth connectivity to the RTI meter, graphical interface and measured data conveniently at the control console. The PDAs with the RTI QA Browser software help provide immediate measured results – up to 8 displayed values (optional waveforms) and no walking back and forth – in and out of the X-ray room. The RTI QA Browser software comes pre-loaded in your PDA and it is ready to use with either the Piranha or Barracuda. Check with your local RTI representative about specific PDA model availability and pricing through RTI.



Latest RTI Firmware/ Software Versions

One of the big advantages of the RTI products is the firmware and software updates via the internet. These updates allow the user to remain current with newest innovations, changes and fixes provided by RTI for its product line. By regularly updating their Piranha or Barracuda, RTI customers are essentially keeping their products “new”, matching many of the features and capabilities of the current products being built right now. The latest software and firmware updates are:

- oRTIgo 6.4C
- QABrowser 4.0A
- RTI Updater 2010.3B
- CT Dose Profile Analyzer 4.0A

If you need to update your meter, you can go to the newly designed RTI website at www.rti.se. Have your Piranha or Barracuda serial number handy and click “Log In”. Follow the directions.

Solid State Detector for X-ray Systems with AEC

Unique “almost not there” Characteristic

The T-20 (Translucent Detector) is a truly unique solution. The T-20 solid state detector is designed specifically for measurements on Rad/Fluoroscopic systems when it is crucial that the detector itself does not affect the system output nor disturb the AEC system.

Up till now, measurements like this were often performed with an ion chamber because of the adverse effects caused by the density, size and design of solid state detectors when placed in the beam.

For use exclusively with the RTI Piranha and Barracuda multimeters, the T-20 provides a unique solid state solution with its “almost not there” design characteristics. The T-20 (with a detector area of 20 mm²) is still impenetrable as

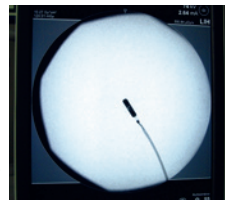
a solid state detector. However, the size is small enough as to not adversely affect the X-ray system or AEC. The unique design has the detector separated from the cable attachment by a carbon fiber rod, long enough to do measurements on a digital detector/image intensifier as large as 45 x 45 cm and yet “invisible” because of the carbon fiber material.

To ensure that a detector this small is positioned correctly and securely, carbon fiber “wings” are added to the sides of the detector. These “wings” make sure that the detector surface lies flat against the incident beam while having no effect on the system output or disturbing the X-ray beam.

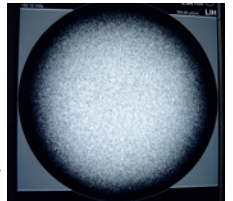
The T-20 also has a built-in correction filter which allows the detector to “self compensate” for

different beam energies. Primary applications for the T-20 with the RTI meters include measuring patient entrance dose and maximum dose rate.

T20 in the beam.



No detector in the beam.



A 60cc ion chamber in the beam.



RTI Extended Warranty Program Introduced

RTI products have been known for dependable and durable solutions. Recently, RTI Electronics announced that all its Piranha and Barracuda multimeters will come with a 2-year factory-issued parts and labor warranty. This is a change from the previous 12 month factory warranty. The 2-year factory parts/labor warranty is valid for all units delivered after November 1, 2009.

RTI also introduced a 10-year Extended Warranty Program for the Barracuda and Piranha meters. With this program, it is possible for owners of these meters to extend the original factory 2-year warranty for an additional 8 years – for a total 10 years¹. The Extended Warranty Option is available for Barracudas and Piranhas ordered after November 1, 2009.



The RTI Extended Warranty Program simplifies the service process for the owner of an RTI Barracuda or Piranha. The instrument is kept as good as new (including firmware upgrades and functional checks). Also, the customer will never need to worry about any covered repair due to normal use or wear and tear while participating in the RTI Extended Warranty Program.

Your RTI Representative can provide details about Calibrations, Warranties, or Extended Warranty Program Pricing.

¹ This program is linked to routine calibrations of the RTI meters by factory-authorized service facilities and incurs an additional charge.

Dependable and Durable

Innovative X-ray QA Solutions ... of Course!

Carrying Your Piranha

Sometimes an innovative solution is as simple as getting from point A to point B safely without damaging expensive test tools.

Two new Piranha carrying cases provide the RTI Piranha user with convenient and practical solutions.

Made of light-weight aluminum, the new Piranha Premium Case is attractive and just “the right size” to provide a space for the Piranha and all its accessories included in the popular Piranha Premium Kits. The new Piranha Premium Case gives the Piranha user the perfect solution for transporting and storing the RTI X-ray QA test tools.

RTI thought, imagination and foresight are evident in this solution. Open the two latches, and lift up the lid. The tools most commonly needed are located on the top tray – ready for immediate use. You will notice the sturdy foam in

the top of the case and in its sides. This helps keep each Piranha accessory secure in its own “cubby hole” until you need it. Pull up the top tray, and you have additional accessories, power supplies and extra storage area on the bottom level.

If a tough, dent-resistant, transport option is preferable, the new RTI Outdoor Carrying Case may be right for you. Made with a rugged, high impact polypropylene exterior, this case is water proof and can take a licking. Inside, it has many of the same design features as the Piranha Premium Case. The Piranha and any desired accessories are stored in two convenient and compact layers.

Either way, your investment is safe and ready for use the next time you walk into an X-ray room.

Don't own a Piranha Premium kit? These affordable transport cases are still available to carry your Piranha and the accessories you may some day add to your QA kit.

NEW!
Release April 2010



Convenient and Practical



Measuring Light, mA, and CT

Unique and Practical Solutions

RTI Electronics provides several accessories that give desired added capabilities to the Piranha and Barracuda, while adding value as well.

The RTI MAS-1 and MAS-2 Probes:

With your RTI Piranha or Barracuda, it is possible to measure kVp, time, dose, dose rate, HVL, Total Filtration, mA, and mAs simultaneously by adding either the invasive MAS-1 or non-invasive MAS-2 mA probes.

The newly redesigned, compact MAS-1 connects to your RTI meter and then to the test mAs socket of the X-ray generator, providing invasive mA and mAs measurements. Range is 0.1 to 3000 mA.

The MAS-2 offers the convenience of the clamp-on probe, allowing the user to fasten the “jaws” of the probe around the HV cable and perform non-invasive mA and mAs measurements connecting to either the Piranha or Barracuda. Range is 10 – 4000 mA.



NEW!
Release April 2010

Unique and Practical

Unique CT Solution – the RTI CT Dose Profiler:

The CT Dose Profiler is based on solid state technology. It is robust and it fits into existing standard phantoms used for CTDI measurements. The sensitive part of the detector chip is remarkably thin (width 0.3 mm). Thanks to the small width, the detector is completely irradiated when the CT scans over the probe as the CT table is moving. The dose is measured in every point of the X-ray beam and the total dose profile is acquired regardless of beam width.

Only one exposure is needed to measure $CTDI_{100}$, $CTDI_w$, $CTDI_{vol}$ and DLP in a phantom and with a single measurement free in air you will receive $CTDI_{100}$, FWHM and Geometric Efficiency.

The RTI Light Probe:

For use with either the Piranha or Barracuda, the RTI Light Probe comes with the both the Monitor and Lux adapters. The RTI Light Probe has the same spectral response as the human eye. That makes it reliable for all different types of measurements, independent of the light source. The spectral response complies with the CIE curve.

Monitor, viewing box

Range 0.03 – 72000 cd/m²

Inaccuracy ±5 % or 0.006 cd/m²

Ambient light

Range 0.01 – 24000 lx

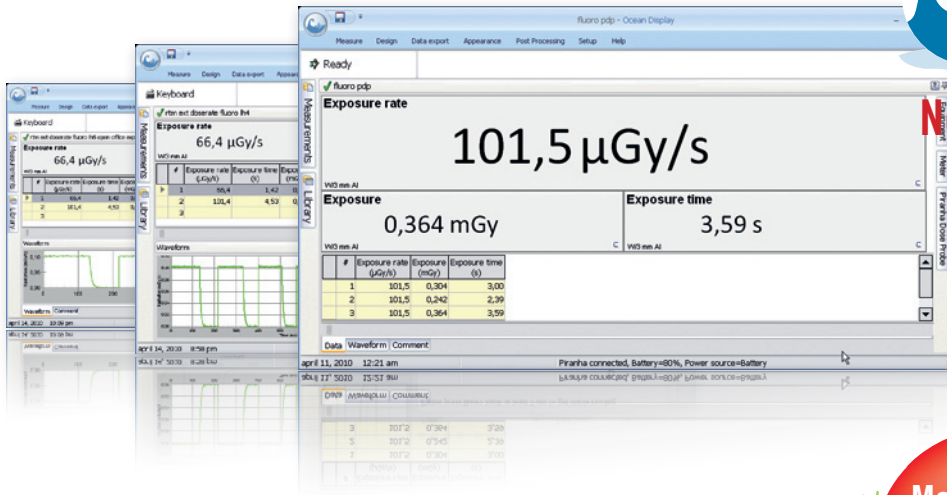
Inaccuracy ±5 % or 0.002 lx

Coming Soon ... Ocean – to a computer screen near you!



Ocean

New QA Software from RTI
Coming Soon ...



Accurate Easy Quick Affordable Small Accurate Smart Quick Affordable Small Accurate

Measure and Analyze in One Shot.



Innovative X-ray QA Solutions ...of Course!