

Cobia meters



INDEPENDENT X-RAY
QUALITY ASSURANCE



Please note: in response to the global events affecting Bluetooth manufacturing and delivery to all industries and corporations, the component will **no longer** be offered with **any Cobia meter** for the foreseeable future.

This came into effect on 24 October 2022.

Let's work together to ensure X-ray safety and quality

A world-leading manufacturer of QA solutions.

In 1981, we invented the first X-ray QA system for diagnostic radiology. Since then, innovation has been at the heart of our corporate philosophy and we have pioneered many QA procedures.

We continue to invest heavily in R&D to push forward the very edge of X-ray QA, across all modalities.

Longer and more active lives, combined with a string of new examination techniques, have made diagnostic radiology the most widely used medical imaging technology.

Diagnostic imaging growth can be seen throughout the healthcare sector, including orthopaedic and vascular imaging, plus full body scanning. This will be a continuing trend, thanks to a shift in focus to more advanced healthcare globally.

As X-ray examinations increase, there is a higher risk of patient and staff exposure to levels of X-ray radiation that could result in negative health implications. As a long-standing member of, among others, IEC, AAPM, and MITA, we participate in work to research, develop, and evolve diagnostic radiology standards.

A key company-wide goal is also to educate customers and partners, sharing our deep knowledge of X-ray QA best-practice to protect patients and staff in an ever more complex operational environment.

Today, we are represented globally by subsidiaries in Europe, the USA, and Asia, as well as 100 distributors worldwide.

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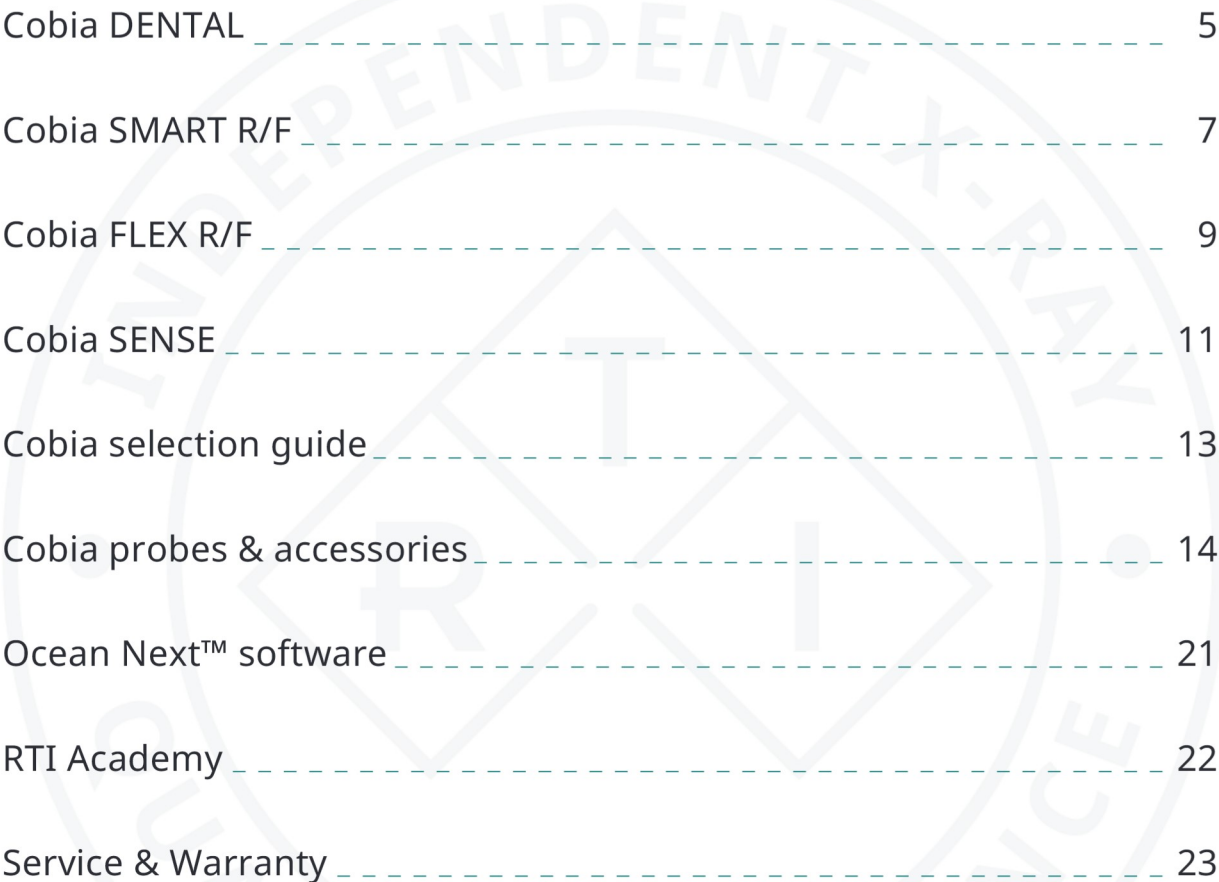
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Cobia meters



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Providing everything you need for X-ray QA

Get more from your Cobia X-ray Quality Control System with our comprehensive range of easy-to-use probes and accessories. Everything you need from robust cases and stands to probes and adapters!

Cobia comes ready-to-use and includes our world-leading Ocean Next™ software for X-ray QA testing and reporting.

Please note: in response to the global events affecting Bluetooth manufacturing and delivery to all industries and corporations, the component will no longer be offered with any Cobia meter for the foreseeable future. This came into effect on 24 Oct. 2022.

Our complete portfolio is available at www.rtigroup.com, or contact one of our Sales teams for more information.



Rotatable color display

A very clear and rotatable color display, so you can read off measurement results fast and easily – even from a distance. The innovative and smart display even shows the results right way up in measurement situations where the meter needs to be positioned upside down.

Cobia in different languages

As well as English, you can choose to run your Cobia in several languages such as Chinese, French, German, Japanese, Norwegian, Russian, Spanish, Swedish, and Turkish. This can easily be selected via the Cobia menu and we constantly update with more languages.

Only pay for what you need

There are several versions of Cobia for measuring a variety of Rad/Fluoro parameters. Select the model that suits your needs, and only pay for what you need to measure.

Cobia DENTAL



Fast and easy Intraoral and CBCT system testing

Now upgraded with detector input to measure DAP, mAs, light, CTDI, and more!

The Cobia DENTAL is a simple-to-use meter for routine inspection of intraoral and CBCT X-ray equipment in dental clinics. Suitable for acceptance tests, constancy tests, and routine quality control.

Since the meter is so easy to position and requires no settings, anyone who works in the dental clinic can quickly and easily perform the routine inspection of the intraoral X-ray equipment. To determine patient safety – every day.

It has an internal detector and a detector input that offer the ability to connect different probes (such as the DAP Chambers, dose probes, CT probes, mAs probes, and light probes). The Cobia DENTAL solution is the first choice for fast and easy Intraoral and CBCT system testing, service, and maintenance.

Measures kVp, Time, HVL, Total Filtration, Dose, Dose rate, and presents Waveform.

9764013-00 Cobia DENTAL with detector input

Key features

- Easy to position with no position dependence
- Large, rotatable display
- Log/History function
- Plug n Play function
- Pulsed radiation analysis
- Full Auto range for kV, TF, and Sensitivity
- Solid-state detectors = no need to compensate for temperature & pressure
- Built-in energy compensation
- Long-lasting rechargeable battery
- Always free firmware upgrades
- Up to ten-year warranty
- Two-year Calibration Cycle

General specifications

Weight (approx.)	280 g
Size	140 × 78 × 28 mm ³
Power Source	Int. battery / Ext. power supply
Battery Life	10 – 20 hours
Display	Color, 320 x 240 pixel
Warranty	Two years
Extended Warranty	Up to ten years
Calibration Cycle	Two years
Standard	Complies with relevant parts of the standards IEC 61674 and IEC 61676 for dosimetric instruments
PTB Approval	DE-15-M-PTB-0005

Cobia DENTAL

Measuring parameters

Tube Voltage	45 – 125 kVp ($\pm 2\%$)
Time	0.33 ms – 9999 s ($\pm 1\%$ or ± 0.33 ms) 3 – 9999 pulses
Dose	70 nGy – 1700 Gy ($\pm 5\%$) 8 μ R – 200 kR ($\pm 5\%$)
Dose Rate	2.5 μ Gy/s – 175 mGy/s ($\pm 5\%$ or ± 25 nGy/s) 0.3 mR/s – 20 R/s ($\pm 5\%$ or ± 2.5 μ R/s) 17 mR/min – 1.2 kR/min ($\pm 5\%$ or ± 0.15 mR/min)
HVL	1.2 – 14 mm Al ($\pm 10\%$ or ± 0.2 mm)
Total Filtration	1.0 – 90 mm Al ($\pm 10\%$ or ± 0.3 mm Al)
Pulse Frequency	1/6 – 260 Hz ($\pm 1\%$)
Dose/Pulse	10 nGy/p – 600 mGy/p ($\pm 5\%$) 1.1 μ R/p – 66 R/p ($\pm 5\%$)
Min. Exp. Time	0.1 ms
Sensitivity	0.2 mA @ 50 kV, 50 cm (3 mm Al)
Auto-Compensation	All dose parameters are automatically compensated for using measured kVp and TF over their specified ranges.

Cobia SMART R/F



The ultimate ready-to-use QA solution

The Cobia SMART R/F is the ultimate solution for checking that the output from an X-ray tube is correct.

Place it beneath the X-ray tube, take an X-ray exposure, and instantly get an accurate reading!

The Cobia SMART R/F is perfect for anyone wanting to ensure that an X-ray device is functioning as it should. For example, it is ideal for checking that the kV and/or dose are not changing over time.

Measures kV, Dose, Dose Rate, Time, Total Filtration, and HVL.

9761003-00

Cobia SMART

Key features

- Easy to position, no position dependence
- Large, rotatable display
- Plug n Play function
- Log/History function
- Pulsed radiation analysis
- Full Auto range for kV, TF, and Sensitivity
- USB communication
- Solid-state detectors = no need to compensate for temperature & pressure
- Built-in energy compensation
- Long-lasting rechargeable battery
- Always free firmware upgrades
- Up to ten-year warranty
- Two-year Calibration Cycle

General specifications

Weight (approx.)	280 g
Size	140 × 78 × 28 mm ³
Power Source	Int. battery / Ext. power supply
Battery Life	10 – 20 hours
Display	Color, 320 x 240 pixel
Warranty	Two years
Extended Warranty	Up to ten years
Calibration Cycle	Two years
Standard	Complies with relevant parts of the standards IEC 61674 and IEC 61676 for dosimetric instruments
PTB Approval	DE-15-M-PTB-0005

Cobia SMART R/F

Measuring parameters

Tube Voltage	38 – 155 kVp ($\pm 2\%$)
Time	0.33 ms – 9999 s ($\pm 1\%$ or ± 0.33 ms) 3 – 9999 pulses
Dose	70 nGy – 1700 Gy ($\pm 5\%$) 8 μ R – 200 kR ($\pm 5\%$)
Dose Rate	2.5 μ Gy/s – 175 mGy/s ($\pm 5\%$ or ± 25 nGy/s) 0.3 mR/s – 20 R/s ($\pm 5\%$ or ± 2.5 μ R/s) 17 mR/min – 1.2 kR/min ($\pm 5\%$ or ± 0.15 mR/min)
Auto-Compensation	All dose parameters are automatically compensated for using measured kVp and TF over their specified ranges.
HVL	1.2 – 14 mm Al ($\pm 10\%$ or ± 0.2 mm)
Total Filtration	1.0 – 90 mm Al ($\pm 10\%$ or ± 0.3 mm Al)
Pulse Frequency	1/6 – 260 Hz ($\pm 1\%$)
Dose/Pulse	10 nGy/p – 600 mGy/p ($\pm 5\%$) 1.1 μ R/p – 66 R/p ($\pm 5\%$)
Min. Exp. Time	0.1 ms
Sensitivity	0.2 mA @ 50 kV, 50 cm (3 mm Al)

Cobia FLEX R/F



As compact and flexible as X-ray QA can get

The Cobia FLEX R/F is amazingly easy to use, and ideal for straightforward routine inspections.

For Rad/Fluoro as well as Intraoral and CBCT measurements, the Cobia FLEX R/F offers you the convenience to make your X-ray Quality Control as quick and accurate as possible. It is just as easy as the Cobia SMART, but with even more possibilities to help you to determine patient safety every day.

The meter not only has an internal detector but a detector input that offers the ability to connect different probes and ion chambers. There is also optional built-in mAs.

Measures kV, Dose, Dose Rate, Time, Total Filtration, and HVL.

9762003-00

Cobia FLEX R/F

Key features

- All-in-one multifunction X-ray meter
- One-shot HVL
- Solid-state detectors = no need to compensate for temperature & pressure
- Optimized for X-ray equipment from a large number of manufacturers
- Built-in energy compensation
- Can be used together with ion chambers
- Wide-range detection of total filtration
- Unique detector design to minimize position and rotation dependence
- Automatic recognition of external probes
- Small, compact, and robust – easy to place
- Backscatter protected
- Long-lasting rechargeable battery
- Always free firmware upgrades
- Upgradable to any Piranha model
- Up to ten-year warranty
- Two-year Calibration Cycle

General specifications

Weight (approx.)	280 g
Size	140 x 78 x 28 mm ³
Power Source	Int. battery / Ext. power supply
Battery Life	10 – 20 hours
Display	Color, 320 x 240 pixel
Warranty	Two years
Extended Warranty	Up to ten years
Calibration Cycle	Two years
Standard	Complies with relevant parts of the standards IEC 61674 and IEC 61676 for dosimetric instruments
PTB Approval	DE-15-M-PTB-0005

Variations

9762004-00 Cobia FLEX R/F with mAs

Cobia FLEX R/F

Measuring parameters

Tube Voltage	38 – 155 kVp ($\pm 2\%$)
Time	0.33 ms – 9999 s ($\pm 1\%$ or ± 0.33 ms) 3 – 9999 pulses
Dose	70 nGy – 1700 Gy ($\pm 5\%$) 8 μ R – 200 kR ($\pm 5\%$)
Dose Rate	2.5 μ Gy/s – 175 mGy/s ($\pm 5\%$ or ± 25 nGy/s) 0.3 mR/s – 20 R/s ($\pm 5\%$ or ± 2.5 μ R/s) 17 mR/min – 1.2 kR/min ($\pm 5\%$ or ± 0.15 mR/min)
Auto Compensation	All dose parameters are automatically compensated for using measured kVp and TF over their specified ranges.
HVL	1.2 – 14 mm Al HVL ($\pm 10\%$ or ± 0.2 mm)
Total Filtration	1.0 – 90 mm Al ($\pm 10\%$ or ± 0.3 mm Al)
Pulse Frequency	1/6 – 260 Hz ($\pm 1\%$)
Dose/Pulse	10 nGy/p – 600 mGy/p ($\pm 5\%$) 1.1 μ R/p – 66 R/p ($\pm 5\%$)
Min. Exp. Time	0.1 ms
Sensitivity	67 nGy and 25 μ Gy/s or 110 nGy and 2.5 μ Gy/s

Internal mAs (optional)

Ranges	0.1 mAs – 999 As 1 – 930 mA 0.01 mAs/pulse – 999 As/pulse 1 – 930 mA/pulse
Inaccuracy	1% or ± 0.1 mA

Waveform

Sampling Time	83.33 – 3000 samples/s
Recording Time	7 – 130 s

Cobia SENSE



For quick and accurate constancy checks

The Cobia SENSE offers you a convenient way to make the regular constancy checks of your X-ray equipment as quick and as accurate as possible.

Dedicated for use with an external detector such as RTI Dose Probe, Light Probe, RTI CT Ion Chamber, or external mAs probes. The wide selection of external probes enables big flexibility in the performance of regular constancy checks for most modalities.

Thanks to the quick response and high sensitivity of the RTI Dose Probe, measurements in Rad/Fluoro applications are fast, easy, and reliable. The RTI Dose Probe is designed to perform very low dose rate measurements, for instance on image intensifiers.

Key features

- Large, rotatable display
- Log/History function
- Plug n Play function
- Built-in energy compensation
- Can be used with ion chambers
- Automatic recognition of external probes
- Long-lasting rechargeable battery
- Always free firmware upgrades
- Up to ten-years warranty
- Two-year calibration cycle

General specifications

Weight (approx.)	280 g
Size	140 × 78 × 28 mm ³
Power Source	Int. battery / Ext. power supply
Battery Life	10 – 20 hours
Display	Color, 320 x 240 pixel
Min. Exp. Time	0.1 ms
Sensitivity	0.2 mA @ 50 kV, 50 cm (3mm Al)
Warranty	Two years
Extended Warranty	Up to ten years
Calibration Cycle	Two years
Standard	Complies with relevant parts of the standards IEC 61674 and IEC 61676 for dosimetric instruments
PTB Approval	DE-15-M-PTB-0005

Variations

9763002-00	Cobia Sense with Dose Probe
9763003-00	Cobia Sense with CTD
9763005-00	Cobia Sense with RTI CT Ion Chamber

Cobia SENSE

Specifications with RTI Dose Probe

Size	20 x 45 x 7.4 mm ³ 0.79" x 1.8" x 0.29"
Weight	85 g (3 oz)
Cable Length	2.0 m (6.6 ft)
Backscatter Protected	Yes
Dose	6 nGy - 2 kGy 660 nR - 250 kR (± 5%)
Dose Rate	220 nGy/s - 220 mGy/s 1.5 mR/min - 1.5 kR/min (±5%)
Time	0.33 ms – 9999 s
Pulses	3 – 9999 pulses
Dose Per Pulse	1 nGy/pulse - 3 kGy/pulse 114 nR/pulse - 342 kR/pulse
Pulse Rate/Frequency	1/6 - 260 Hz

Specifications with CT Dose Profiler

Length	210 mm
Diameter	12.5 mm
Weight	50 g
Sensor Width	250 µm
Cable Length	4.0 m (13.1 ft)
Dose Range	80 nGy – 33 kGy 9 µR – 3.8 MR
Inaccuracy	±5%
Dose Rate	3.3 µGy/s – 3.3 Gy/s 0.4 mR/s – 380 R/s
Inaccuracy	±5 %

Specifications with RTI CT Ion Chamber

Active Length	100 mm
Active Volume	5.3 cm ³
Diameter	12 mm, 12.6 incl O-rings
Cable Length	2 m
Typical Leakage	±20 fA
Radiation Quality	70 - 150 kV

RTI Support

One of our goals is to share our deep knowledge of best practices within the field of X-ray QA and testing. Contact the RTI Support team for technical, application, and software Quality Assurance assistance.

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Cobia selection guide



USB connectivity for usage with Ocean Next™ software on a laptop or tablet PC.

Cobia DENTAL - for Dental (Intraoral)

- Measures kV, Dose, Dose Rate, Time, HVL, Total Filtration, Pulses, Pulse Rate, Dose/Pulse, and Effective Time
- kV range: 45 – 125 kVp
- Internal detector & detector input
- Connect any RTI detector, such as DAP Chamber, Dose Probe, mAs Probe, CT probe, and Light Probe

Cobia SMART R/F - for R/F & Dental (Intraoral)*

- Measures kV, Dose, Dose Rate, Time, HVL, Total Filtration, Pulses, Pulse Rate, Dose/Pulse, and Effective Time
- kV range: 38 – 155 kVp
- Only internal detector (no detector input)

Cobia FLEX R/F - for R/F & Dental (intraoral)

- Measures kV, Dose, Dose Rate, Time, HVL, Total Filtration, Pulses, Pulse Rate, Dose/Pulse, and Effective Time
- kV range: 38 – 155 kVp
- Internal detector and detector input
- Connect any RTI detector, such as DAP Chamber, Dose Probe, mAs Probe, CT probe, Light Probe, and RTI T20
- Available with or without built-in mAs connector for invasive mA & mAs measurements

Cobia SENSE - only detector input (no internal detector)

- Connect any RTI detector, apart from the MAS-2

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Cobia probes & accessories



RTI Dose Probe

An external dose probe, designed to perform very low dose rate measurements, for instance, on image identifiers.

The probe is very small to avoid or minimize interference with AEC (Automatic Exposure Control) on X-ray equipment. This also enables it to fit into the table bucky.

Since it is a solid-state detector, no corrections for pressure or temperature are needed. Neither is polarizing voltage.

The RTI Dose Probe is small and has a fast response which makes it ideal for pulsed fluoroscopy. It can detect individual pulses, determine pulse rate, and show waveforms at dose rate.

Art. No: 9730003-00

Specifications with Cobia

Size	20 x 45 x 7.4 mm ³ 0.79" x 1.8" x 0.29"
Weight	85 g (3 oz)
Cable Length	2.0 m (6.6 ft)
Backscatter Protected	Yes
Dose	6 nGy - 2 kGy 660 nR - 250 kR (±5%)
Dose Rate	220 nGy/s - 220 mGy/s 1.5 mR/min - 1.5 kR/min (±5%)
Time	0.33 ms - 9999 s
Pulses	3 - 9999 pulses
Dose Per Pulse	1 nGy/pulse - 3 kGy/p 114 nR/pulse - 342 kR/p
Pulse Rate/Frequency	1/6 - 260 Hz

RTI T20 Dose Detector

The RTI T20 Dose Probe is a solid-state detector dedicated for measurements on Rad/Fluoro systems, when it is crucial that the detector itself does not have any effect on the system output (due to AEC) or disturbs the X-ray beam.

It was developed for measurements of the patient entrance dose (skin dose) and the maximum dose rate in the radiographic and fluoroscopic field. Despite its small size, the RTI T20 Dose Detector is protected from picking up backscatter.

In contrast to many other detectors, the RTI T20 Dose Detector can be placed anywhere in the X-ray field. It has five times higher sensitivity than a typical ion chamber.

Art. No: 9730015-00

Specifications with Cobia

Size of Detector House	26 x 5 mm ²
Length	318 mm (rod 280 mm + detector 26 mm + back mount 12 mm)
Ranges	0.7 nGy - 10 kGy 0.08 μR - 1 MR 27 nGy/s - 500 m ³ Gy/s 3 μR/s - 57 R/s
Inaccuracy	±5% (RQR 50 - 150 kV)
Energy Dependence	Less than ±5% for RQR 50 - 150 kV
Angular Dependence	Less than ±2% for incident angles less than 10 degrees.
Typical Sensitivity	8 μC/Gy
Trig Modes	After exposure, continuous, timed, and free run

Cobia probes & accessories



RTI MAS-1

The RTI MAS-1 is an invasive probe for the measurement of mA and mAs.

The probe connects to the mAs socket in the X-ray generator and to the multimeter. It can be used to measure tube current for both radiographic and fluoroscopic exposures.

Art. No: 9730005-00

Specifications with Cobia

Current Range	0.1 – 3000 mA
Inaccuracy	±1% or ±0.01 mA
Frequency Range	DC–500 Hz (-3 dB)
Size	60 x 35 x 72 mm ³
Weight	125 g
Battery Life	Around 100 h
Rechargeable Battery	With mini-USB connector
Cable Length	4 m (extension available)
Connector	Hirose



RTI MAS-2

The RTI MAS-2 probe is a clamp-on probe for the non-invasive measurement of mA (tube current) and mAs.

The probe simply clamped onto the high voltage cable and then ready for measurements. No connection inside the X-ray generator is needed! Together with your meter, direct reading of mA and mAs, as well as waveform, are obtained.

Art. No: 9730006-00

Specifications with Cobia

Current Range	10 - 4000 mA
Inaccuracy	±5% or ±2 mA (±3% at 250 mA)
Charge Range	0.1 mAs - 9999 mAs
Size	183 x 61 x 36 mm ³
Connector	Hirose
Maximum Cable Diameter	24 mm
Power Source	9 V "6LR61" Alkaline battery

Cobia probes & accessories



Ion Chamber Magna 1 cc

The Ion Chamber Magna 1cc is designed for mammography dose measurement. With an excellent energy response, the Ion Chamber Magna 1 cc can be used for radiographic applications too. It is the ideal choice for two reasons:

1. Evaluations of Magna ionization chambers show a response within $\pm 1\%$ over an extended mammography range of 20-50 kVp (HVL of 0.15 mm to 0.73 mm Al).
2. All mammographic mean glandular dose tables are based on in-air measurements.

The Magna's air equivalent construction makes it ideally suited for in-air exposure measurements of mean glandular dose. Delivered in a hard case for the best protection.

Art. No: 9706100-00

General specifications

Connector Type	LEMO triaxial
Cable	2 m, low noise triaxial
Active Volume	1 cm ³
Materials	Air equivalent plastic, acrylic
Entrance Window	Kapton conductive film
Reference Point	Scribed line around circumference of the outer ring is half way between the collector and the entry window.
Typical Leakage	± 5 fA
Radiation Quality	20 - 150 kV
Energy Dependence	$\pm 2\%$
Typical Sensitivity	20 mGy/nC
<i>Chamber Dimensions</i>	
Height	25.4 mm
Diameter	41.3 mm
Inner Plate Separation	8 mm
Weight	200 g



RTI Chamber Adapter

The RTI Chamber Adapter is an external module for connecting ion chambers to the Piranha, Cobia FLEX, or Cobia SENSE.

Supports ion chambers with LEMO triaxial connectors (e.g. RTI CT Ion Chamber, DAP Chamber, and Magna 1cc mammography ion chamber).

Measuring range: 10 pA – 0.7 μ A

Accessories: BNC and TNC triaxial to LEMO adapters, for connection of other types of triaxial ion chambers.

Art. No: 9730016-00

Cobia probes & accessories



RTI Scatter Probe

Solid-state detector for leakage and scatter detection in X-ray environments. Two separate detector areas of 10 cm² and 100 cm² fulfill current regulations and standards for X-ray leakage and scatter measurements. For barrier, leakage, and scatter measurements various industry standards apply: 21 CFR 1020.32; 21 CFR 1020.30; IEC 60601-2-54; and IEC 60601-1-3. There are several more standards for various modalities.

Art. No: 9731001-00

General specifications

Connector Type	USB Type C
Cable	5 m USB A to C Extendable with optional USB Active extension cable
Power	5 V via USB
Active Area	10 cm ² and 100 cm ²
Dimensions	139 x 139 x 17 mm
Weight	370 g (430 g incl. handle)
Rated Range of Use	10 - 150 keV 80 - 110 kPa +10 - +40 °C 10 - 80% rel. humidity
Trig Mode	Auto or Manual
Trig Level (auto)	5 µGy/h (0.6 mR/h) or 10 µSv/h
Air Kerma Rate	0 - 100 mGy/h (0 - 10 R/h) ±10% or ±0.3 µGy/h 0.03 mR/h (ISO N20-N150)
H*(10) Rate	0 - 200 mSv/h ±10% or ±0.6 µSv/h (ISO N20-N150)
Mean Energy	10 - 150 keV ±10% or 5 keV (min rate: 25 µGy/h)
Half Value Layer (HVL)	0.1 - 17 mm Al ±10% or 0.05 mm Al (min rate: 25 µGy/h)
Time	0 - 9999 s
Sampling Rate	1 - 300 Hz
Bandwidth	0.5 to 50 Hz



DAP Chamber

Globally, DAP is taking over from CTDI in the dental market. RTI has long been in the lead with a solution that more than meets the new standard.

The DAP Chamber is the perfect tool for field calibration of orthodontic X-ray equipment. You can measure with just one click – fast, easy, and accurate, ensuring your quality control process runs safely and smoothly.

Available in two sizes - 86 mm x 86 mm and 147 mm x 147 mm - where the smaller one will fit perfectly also in the smallest RTI carrying case.

Optional rails on the 147 mm x 147 mm model enable it to fit on any standard collimator on Rad/Fluoro equipment.

Make sure your Piranha is complete! The DAP Chamber is the essential accessory for your dental X-ray QA kit.

86 mm x 86 mm Art. No: 9705070-00

147 mm x 147 mm Art. No: 9705060-00

General specifications

Range	6 mGy ² /s - 1800 mGy ² /s 0.6 mGy ² - 1 kGy ²
Exp. Uncertainty	±6% at reference conditions RQR5, ±10% RQR2 to RQR10
Valid For	Exp. time >100 ms RTI Chamber Adapter v.1.1.

Cobia probes & accessories



RTI CT Dose Profiler

The RTI CT Dose Profiler has taken the CT quality assurance to the next level. Because of its revolutionary design, it has transformed CTDI measurement from being inaccurate, due to under-estimation of the dose for wide beams, to becoming more exact. It also has the ability to further analyze the result – all in one shot!

The CT Dose Profiler is based on solid-state technology. It is robust, and it fits into existing standard phantoms used for CTDI measurements.

Art. No: 9730013-00

General specifications

Length	210 mm
Diameter	12.5 mm
Weight	50 g
Sensor Width	250 µm
Cable Length	4.0 m (13.1 ft)

Specifications with Cobia FLEX/SENSE

Dose rate	3.3 µGy/s to 3.3 Gy/s 23 mR/min - 23 kR/min
Inaccuracy	±5% or ±0.4 µGy/s
Spatial Resolution	0.25 mm

Following parameters are achieved from a single exposure

CTDI(100)
Point Dose
CT Dose Profile
CTDI(w)
CTDI(vol)
DLP
Performance of the AEC
FWHM (Full Width at Half Maximum of the dose profile)
Geometric Efficiency

RTI CT Ion Chamber 10 cm & 30 cm (top)

The RTI CT Ion Chambers - 10 cm and 30 cm - are intended for CTDI and dose length product measurements on CT scanners in a Phantom or free-in-air. Both chambers can be connected via the RTI Chamber Adapter to the Piranha or the Cobia. The 10 cm chamber can also fit into standard phantoms used for CTDI measurements.

Both CT Ion Chambers fulfill applicable parts of the IEC 61674 standard for diagnostic dosimeters and are thereby compatible with IEC 61223-2-6 and 66601-2-44 for applicable CT dosimetry. The chambers come with RQT9, 120 kV, and W/AI + 0.25 mm Cu as standard calibration.

Note: RTI Chamber Adapter is also required.

10 cm Art. No: 9730025-00

30 cm Art. No: 9730026-00

General specifications 10 cm & 30 cm

Air Kerma Rate	0.3 mGycm/s to 3 Gycm/s
Inaccuracy	±5% or ±0.03 mGycm/s
Connector Type	LEMO triaxial
Cable	2 m, low noise triaxial
Active Volume	5.3 cm ³ (10 cm) 16 cm ³ (30 cm)
Active Length	100 mm (10 cm) 300 mm (30 cm)
Diameter	12 mm, 12.6 incl O-rings
Typical Leakage	±20 fA
Radiation Quality	70 - 150 kV
Sensitivity	30 mGycm/nC
Energy Dependence	±1%

Cobia probes & accessories



LoniMover™

The LoniMover™ has now been updated to version 4.2!

Together with the RTI CT Ion Chamber or CT Dose Profiler, the LoniMover™ is, without a doubt, the easiest way to measure CTDI and waveforms for Wide Beam and Cone Beam CT.

Measure CTDI for Wide Beam and Cone Beam CT according to the IEC 60601-2-44 Ed. 3:A1 standard. The LoniMover™ works well with any Pencil Ion Chamber of any brand.

The LoniCT software still operate simultaneously with the RTI Ocean Next™ software, so you can gather all your measured data in your sessions, as well as analyze, save, and autogenerate full reports.

With this solution, you can seamlessly use the LoniMover™ with a Piranha. Even better, with built-in Bluetooth, everything is wireless and easy to set up.

Art. No: **9730030-00**

Version 4.2 new features

- Scan up to 300 mm
(and the Pencil Ion Chamber can cover 400 mm)
- LoniCT software can be used with Cobia SENSE and Cobia FLEX Bluetooth connectivity
- LoniCT software can measure FWHM on pulsed profiles
- More flexibility in scanning parameters
- Mechanical fixes
- More software functions, saving data, and settings!



RTI Light Probe

The RTI Light Probe is designed to comply with the needs of QA in modern X-ray departments.

With a monitor and a lux adapter, the RTI Light Probe measures the brightness on monitors and film viewing boxes and the ambient light in the room. It has the same spectral response as the human eye! This makes it reliable for all different types of measurements, independent of the light source.

The spectral response complies with the CIE V(λ) curve.

Art. No: **9730007-00**

General specifications

Type	L100B
Spectral Response	CIE V(λ) (Photopic)
Field of View - Lux Adapter	180° (Cosine)
Field of View - Monitor Adapter	Ø 7 mm
Connector	Hirose (Piranha, Cobia) with automatic identification

Specifications with Cobia

Monitor, Viewing Box (Luminance)	0.2 cd/m ² - 190 kcd/m ² (±5% or ±0.04 cd/m ²)
Ambient Light (Illuminance)	0.08 lx - 70 klx (±5% or ±0.02 lx)

Cobia probes & accessories



Cobia Vertical Holder

The Cobia Vertical Holder is designed for attaching the Cobia meter to vertical surfaces like a wall bucky or Cone Beam X-ray units. The holder comes with an adjustable strap - with a suction cup - for safe mounting.

Art. No:

9744011-00



Soft-Shell Case

The Soft-Shell Case is a perfect solution for storing your Cobia (or Piranha) meter, a power supply, tablet, and a couple of probes.

Dimensions: 32 x 22 x 9 cm³.

Art. No:

9742008-00

Ocean Next™ software



The importance of dedicated software applications to conduct professional QA is growing. Microsoft Excel is flexible but not enough to meet the growing demands for traceability, compliance, and efficiency.

By using Ocean Next™ software, you can plan the measurements in advance, create checklists, add information as a pop-up window for a specific exposure, and include instructions to simplify the work for you and your co-workers using a streamlined user interface.

Choose from the three different license levels of Quick, Advantage, and Professional.

Quick: for swift QA

Start measuring within seconds! The application detects what instrument and probes you have connected to assist you the best way possible – just Plug n Play!

The interface adapts, and all the measured parameters are displayed on one screen.

The results and waveforms can be retained in the database for later review and compiled in a report.



Advantage: for steamlined QA measurements

For more advanced QA measurements than Quick, the Advantage license enables customization of templates to suit your needs. Predefined workflows, automation of steps, and graphs.

In Studio View, you can design single-page templates (including analysis and checklists) and important reports, e.g. with your own logo and layout.

Professional: complete QA system for superior efficiency and compliance

For trend analysis and full traceability of your measurements. You can build a holistic solution for your X-ray QA, by storing your measurements in a searchable database structured to your needs.

RTI Academy

RTI Academy offers video and classroom-based product and application training.

The combination of classroom and hands-on training enhances the learning process, and lets participants develop new X-ray QA skills.

The Academy also offers customized training packages for specific skills development, as well as focused workshops, to improve QA procedures.



Scheduled training courses and sessions are held at all RTI locations with access to X-ray labs and experienced staff. However, sometimes it is more efficient to run the training at the customer site.

Classroom training courses

Location: RTI Group Headquarters, Mölndal, Sweden. Access to the RTI Training Center and onsite staff and facilities.

Piranha Basic Training

One-day training for first-time users to get familiar with their Piranha meter.

The theory is interlaced with hands-on in the lab. Ocean Next™ software Basic Training is included.

Cobia Basic Training

One-day training for first-time users to get familiar with their Cobia meter.

The theory is interlaced with hands-on in the X-ray lab. Ocean Next™ software Basic Training is included.

Ocean Next™ Basic Training

Half-day training for beginners. An overview of how Ocean Next™ software can help in their QA processes.

Theory and hands-on in the X-ray lab.

Ocean Next™ Advanced Training

Two-day theoretical and practical training in Ocean Next™ software template design.

As part of the training, the templates are tested in the X-ray lab for realistic evaluation.



Contact

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Online

Visit www.rtigroup.com/training/ to find out more about the RTI Academy.

Service & Warranty

Since 1982, when we released the DIGI-X system, we've been delivering world-leading X-ray QA solutions of meters, probes, and software.

Our calibration labs, at offices in Mölndal (Sweden) and Towaco (NJ, USA), are designed to serve users of RTI products around the globe with a traceable, reliable, and convenient service. All services are performed by our trained, in-house personnel and our calibrations are traceable to international standards and with true adjustments.

We are the only non-invasive X-ray QA test equipment manufacturer that includes all products in its ISO 17025 accreditation scope.

Two-year calibration cycle

Due to the high reliability of RTI products, we recommend a two-year calibration cycle. To make it convenient for you, we offer to keep track of when your solution needs to be sent in for calibration. We will send you a reminder two months before your calibration is due, giving you time to plan and schedule your work.

A reliable and dependable service

At our accredited calibration labs, your solution is always in the best hands! Our trained Service Engineers take the very best care of your meter(s) and probe(s), making sure they perform better for longer. As an owner and user of any RTI solution, you are guaranteed to always receive prompt and professional support if and when required.



We are proud of our ISO/IEC 17025:2017 accreditation – “General requirements for the competence of testing and calibration laboratories”. This is a guarantee that we comply with obligations under the international standards, and that we have a quality management system in place to assure that the calibrations we perform are of the highest quality - each and every time.



The RTI conditional Extended Warranty program, for the Piranha and Cobia, gives you up to ten-year warranty. Each instrument comes with a two-year warranty. By joining the Extended Warranty Program, you can increase your warranty two years at a time – up to ten years.

RTI Service

All services are performed by specially-trained RTI personnel, and our calibrations are carried out with true adjustments and traceable to international standards.

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c/o RTI

What we do matters. To patients. To professionals. To us.

It is more than algorithms, technology and design.

It is about setting the standard for quality assurance
of X-ray imaging.

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INDEPENDENT X-RAY
QUALITY ASSURANCE

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