

# The RTI Cobia family



## Convenient, wireless QA

Cobia is RTI's easy-to-use product platform for quick and efficient measurements.

The Cobias are all tailored for different modalities and job situations.



INDEPENDENT X-RAY  
QUALITY ASSURANCE

# The RTI Cobia selection guide

Specifications in this guide may be changed without notice.

	Cobia SMART	Cobia FLEX		Cobia SENSE				Cobia DENTAL
	SMART	FLEX	w. mAs	Rad	Mam	CTDP	CT IC	DENTAL
Mammography	NO	EXT	EXT	EXT	X	EXT	EXT	NO
Rad & Fluoro	X	X	X	X	EXT	EXT	EXT	NO
Dental	X	X	X	X	EXT	EXT	EXT	X
CT	NO	EXT	EXT	EXT	EXT	X	X	NO
kV	X	X	X	NO	NO	NO	NO	X
Time	X	X	X	X	X	X	X	X
Dose	X	X	X	X	X	(CTDI)	(CTDI)	X
Dose Rate	X	X	X	X	X	NO	NO	X
HVL	X	X	X	NO	NO	NO	NO	X
Total Filtration	X	X	X	NO	NO	NO	NO	X
Pulses	X	X	X	X	X	NO	NO	X
Pulse Rate	X	X	X	NO	NO	NO	NO	X
Dose/Pulse	X	X	X	NO	NO	NO	NO	X
Effective time	X	X	X	NO	NO	NO	NO	X
Internal mAs	NO	NO	X	NO	NO	NO	NO	NO
Ocean compatibility	X	X	X	X	X	X	X	X
OCP	X	X	X	X	X	X	X	X
RTI Soft Shell Case	X	X	X	X	X	X	X	X
Dose Probe	NO	OPT	OPT	X	X	OPT	OPT	OPT
Mas-1 & 2	NO	OPT	OPT	MAS-1 OPT*	MAS-1 OPT*	MAS-1 OPT*	MAS-1 OPT*	OPT
CTDP	NO	OPT	OPT	OPT	OPT	X	OPT	OPT
CT Ion Chamber	NO	OPT	OPT	OPT	OPT	OPT	X	OPT
Light Probe	NO	OPT	OPT	OPT	OPT	OPT	OPT	OPT
DAP Chamber	NO	OPT	OPT	OPT	OPT	OPT	OPT	OPT
Bluetooth connection	X	X	X	X	X	X	X	X

X = Included or possible NO = Not Possible OPT = Optional EXT = Extra probe/cal. of probe needs to be purchased \*MAS-2 cannot be used with Cobia SENSE

Rad & Fluoro ..... Meters for radiography and fluoroscopy.

Mammography ..... Meters for mammography (not kVp).

CT ..... Meters for CT.

Dental ..... Meters for dental (intraoral or CBCT).

kVp & time ..... Measures kVp & time for supported modality.

HVL/Total Filtration. .... Measures HVL and total filtration using internal filters.

Dose & Dose Rate ..... The meter measures dose and dose rate.

OCP ..... Open Communication Protocol.

Dose Probe ..... Useful when higher sensitivity and minimal perturbation of field are required.

CTDP ..... CT Dose Profiler for CT dose profile measurement.

CTDI ..... CTDI parameters.

Ion Chamber ..... RTI Chamber Adapter is required.

## Cobia SMART R/F



## Cobia FLEX R/F



## Cobia SENSE



## Cobia DENTAL



# The Cobia family

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## Cobia SMART R/F

A simple-to-use meter for checking that the output from an X-ray tube is correct.

For measurements of kV, dose, dose rate, time, TF, and HVL on conventional radiography and fluoroscopy. It can be used on dental intraoral X-ray tubes and CBCT as well.

## Cobia FLEX R/F

Amazingly easy to use and ideal for straightforward routine inspections.

For measurements of kV, dose, dose rate, time, HVL, and TF on conventional radiography, fluoroscopy. It can be used on dental intraoral X-ray tubes & CBCT as well. The Cobia FLEX R/F can use external **Cobia SENSE**

A convenient way to make the regular constancy checks of your X-ray equipment as quick and as accurate as possible.

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

## Cobia DENTAL

The first choice for fast and easy Intraoral and CBCT system testing, service, and maintenance.

For measurements of TF, kV, dose, dose rate, time, and HVL on dental intraoral X-ray tubes as well as CBCT. Especially suitable for acceptance and constancy tests, and routine inspections.



# Cobia SMART R/F

The Cobia SMART R/F is a simple-to-use meter 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 measured values can be read directly from the large and clear display, and stored in the meter to read later.

## Check and Go

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 fast and often that the kV and/or dose are not changing over time.

## Different languages

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

Cobia SMART R/F kV & Dose Art. No: ..... 9761003-00



### 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.

## Specifications

Cobia SMART R/F		Measuring parameters	
<b>Weight Approx</b>	290 g		
<b>Size</b>	138 x 76 x 27 mm <sup>3</sup>		
<b>Power source</b>	Int. battery / ext. power		
<b>Battery life</b>	10 – 20 hours		
<b>Display</b>	Color, 320x240 pixel		
<b>Min. exp. time</b>	0.1 ms		
<b>Sensitivity</b>	0.2 mA @ 50 kV, 50 cm		
		<b>Range</b>	<b>Inaccuracy</b>
		<b>Tube voltage</b>	35 – 155 kVp ±2 %
		<b>Time</b>	0 ms – 9999 s ±1 % or ±0.33 ms
			3 – 9999 pulses
		<b>Dose</b>	70 nGy–1700 Gy ±5 %
			8 µR – 200 kR ±5 %
		<b>Dose rate</b>	2.5 µGy/s – 175 mGy/s ±5 % or ±200 nGy/s
			0.3 mR/s – 20 R/s ±5 % or ±2 µR/s
			17 mR/min–1200 R/min ±5 % or ±0.1 mR/min
			1 R/h – 70 kR/h ±5 % or ±70 mR/h
		<b>HVL</b>	1.2 – 14 mm Al ±10 % or ±0.2 mm
		<b>Total Filtration</b>	1.0 – 90 mm Al ±10 % or ±0.3 mm Al
		<b>Pulse frequency</b>	1/6 – 260 Hz ±1 % or ±0.2 Hz
		<b>Dose/Pulse</b>	10 nGy/p – 600 mGy/p ±5 %
			1.1 µR/p – 66 R/p ±5 %

## Cobia FLEX R/F

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 R/F but with even more possibilities.

It has an internal detector, a detector input that offers the ability to connect different probes and ion chambers, and an optional built-in mAs. The measured values can be read directly from the large and clear display, and stored in the meter to read later.

### Built to suit your needs

Cobia FLEX R/F - for measurements of kV, dose, dose rate, time, HVL and TF on conventional radiography and fluoroscopy. It can be used on dental intraoral X-ray tubes and CBCT as well. Our selection of external probes gives you several opportunities to make the Cobia Flex suit your specific needs – just plug in, and the Flex will adapt automatically.

### Different languages

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

Cobia FLEX R/F Art. No: ..... 9762003-00

Cobia FLEX R/F w. mAs Art. No: ..... 9762004-00



### 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.

## Specifications

Cobia FLEX R/F		Measuring parameters	
		Range	Inaccuracy
<b>Weight Approx</b>	290 g	<b>Tube voltage</b>	35 – 155 kVp ±2 %
<b>Size</b>	138 x 76 x 27 mm <sup>3</sup>	<b>Time</b>	0 ms – 9999 s ±1 % or ±0.33 ms
<b>Power source</b>	Int. battery / ext. power supply		3 – 9999 pulses
<b>Battery life</b>	10 – 20 hours	<b>Dose</b>	70 nGy–1700 Gy ±5 %
<b>Display</b>	Color, 320x240 pixel		8 µR – 200 kR ±5 %
<b>Min. exp. time</b>	0.1 ms	<b>Dose rate</b>	2.5 µGy/s – 175 mGy/s ±5 % or ±25 nGy/s
<b>Sensitivity</b>	0.2 mA @ 50 kV, 50 cm (3 mm Al)		0.3 mR/s – 20 R/s ±5 % or ±2.5 µR/s
			17 mR/min–1200 R/min ±5 % or ±0.15 mR/min
			1 R/h – 70 kR/h ±5 % or ±0.9 mR/h
		<b>HVL</b>	1.2 – 14 mm Al ±10 % or ±0.2 mm
		<b>Total Filtration</b>	1.0 – 90 mm Al ±10 % or ±0.3 mm Al
		<b>Pulse frequency</b>	1/6 – 260 Hz ±1 % or ±0.2 Hz
		<b>Dose/Pulse</b>	10 nGy/p – 1 Gy/p ±5 %
			1.1 µR/p – 120 R/p ±5 %

# Cobia DENTAL

A simple-to-use meter for routine inspection of intraoral and CBCT X-ray equipment in dental clinics. Especially suitable for acceptance tests, constancy tests, and routine quality control.

Since the Cobia is so easy to position and doesn't require any complicated 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.

The measured values can be read directly from the large and clear display, and stored in the meter to read later.

Our Cobia DENTAL solution is the first choice for fast and easy Intraoral and CBCT system testing, service, and maintenance.

## Different languages

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

Cobia DENTAL Art. No: ..... 9764003-00

Cobia DENTAL kV & Dose + External input Art. No: ..... 9764013-00

Cobia DENTAL kV & Dose + mAs + External input Art. No: ..... 9764014-00



### 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.

## Specifications

Cobia DENTAL				
<b>Weight Approx</b>	290 g		<b>Range</b>	
<b>Size</b>	138 x 76 x 27 mm <sup>3</sup>	<b>Tube voltage</b>	45 – 125 kVp	<b>Inaccuracy</b>
<b>Power source</b>	Int. battery / ext. power supply	<b>Time</b>	0 ms – 9999 s	±2 %
<b>Battery life</b>	10 – 20 hours		3 – 9999 pulses	±1 % or ±0.33 ms
<b>Display</b>	Color, 320x240 pixel	<b>Dose</b>	70 nGy–1700 Gy	±5 %
<b>Min. exp. time</b>	0.1 ms		8 µR – 200 kR	±5 %
<b>Auto-Compensation</b>	1.0 – 900 mm Al Total Filtr. equiv.			
<b>Sensitivity</b>	0.2 mA @ 50 kV, 50 cm (3 mm Al)	<b>Dose rate</b>	2.5 µGy/s – 175 mGy/s	±5 % or ±200 nGy/s
			0.3 mR/s – 20 R/s	±5 % or ±2 µR/s
			17 mR/min–1200 R/min	±5 % or ±0.1 mR/min
			1 R/h – 70 kR/h	±5 % or ±70 mR/h
		<b>HVL</b>	1.2 – 14 mm Al	±10 % or ±0.2 mm
		<b>Total Filtration</b>	1.0 – 90 mm Al	±10 % or ±0.3 mm Al
		<b>Pulse frequency</b>	1/6 – 260 Hz	±1 % or ±0.2 Hz
		<b>Dose/Pulse</b>	10 nGy/p – 1 Gy/p	±5 %
			1.1 µR/p – 120 R/p	±5 %

# Cobia SENSE

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.

It offers the ability to connect different probes and ion chambers, thereby enabling measurement in a wide variety of situations. The measured values can be read directly from the large and clear display, and are stored in the meter for later viewing.

The Sense is dedicated for use with an external detector, such as the DAP Chamber, RTI Dose Probe, RTI 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.

## Plug n Play

Thanks to the “Plug n Play” functionality, the Cobia SENSE will automatically recognize the different detectors you connect and instantly be ready for your measurements. This, together with the easy-to-read display, is why the it is also the perfect tool for untrained users.

## Different languages

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

Cobia SENSE R/F w. RTI Dose Probe Art. No: ..... 9763002-00

Cobia SENSE Mammo w. RTI Dose Probe Art. No: ..... 9763002-01

Cobia SENSE w. RTI CT Dose Profiler Art. No: ..... 9763003-00

Cobia SENSE w RTI CT Ion Chamber Art. No: ..... 9763005-00



### 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.

## Specifications

Cobia SENSE		Measuring parameters	
<b>Weight Approx</b>	290 g	<b>Range</b>	<b>Inaccuracy</b>
<b>Size</b>	138 x 76 x 27 mm <sup>3</sup>	<b>Time</b>	0 ms – 2000 s
<b>Power source</b>	Int. battery / ext. power supply		3 – 9999 pulses
<b>Battery life</b>	10 – 20 hours	<b>Dose</b>	5 nGy – 2 kGy. 0.6 µR – 250 kR
<b>Display</b>	Color, 320x240 pixel	<b>Dose rate</b>	0.2 µGy/s - 200 mGy/s. 1.5 mR/min - 1.5 kR/min
<b>Min. exp. time</b>	0.1 ms	<b>Dose per Pulse</b>	1 nGy/pulse - 1600 mGy/pulse. 0.1 µR/pulse - 180 R/pulse
			±5 %

## Service & Warranty

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Since its establishment in 1981, RTI Group has been delivering world-leading X-ray QA “solutions” of meters and probes.

### 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.



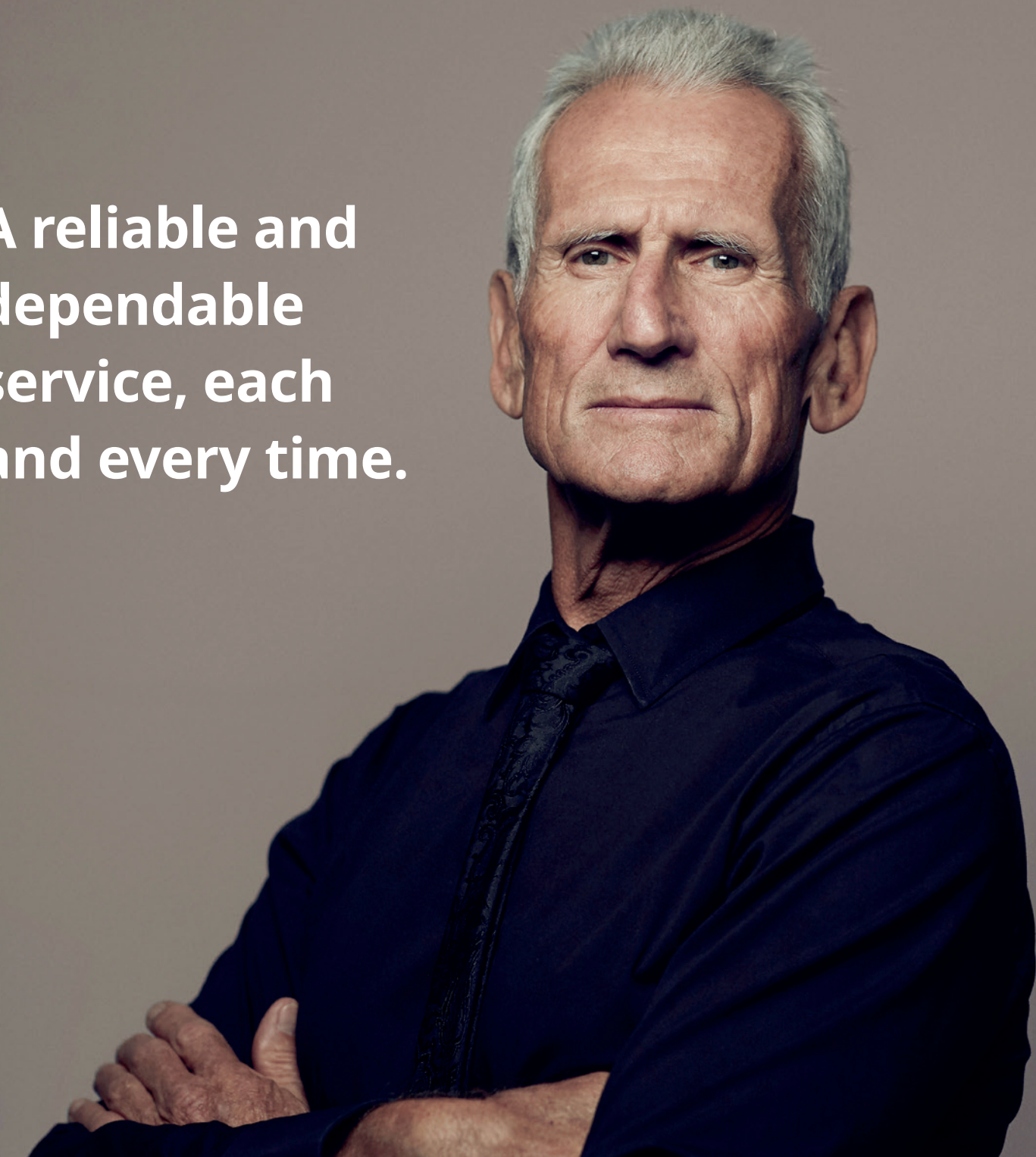
RTI is proud of its ISO/IEC 17025:2017 accreditation – “General requirements for the competence of testing and calibration laboratories”. This is a guarantee that we comply with obligations under the international standards, and that we have a quality management system in place to assure that the calibrations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



The RTI conditional Extended Warranty program, for the Piranha, gives you up to 10-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 10 years.

### Let's work together

At our accredited calibration labs, your solution is in the best hands. Trained RTI service engineers take the very best care of your meter(s) and probes, 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.



**A reliable and  
dependable  
service, each  
and every time.**



## Cobia accessories



### RTI Dose Probe

The dose probe is intended for low dose rate measurements, such as input dose rate to image intensifiers.

Art. No ..... 9730003-00



### RTI T20 Dose Detector

A solid-state detector, dedicated for measurements on R/F systems when it is crucial that the detector itself does not have any effect on the system output or disturbs the X-ray beam. Despite its small size, it is protected from picking up backscatter.

Art. No ..... 9730015-00



### Ion Chamber Magna 1 cc

The Magna 1cc ionisation chamber is designed for mammography dose measurement. It has an excellent energy response, and this is why it can be used for radiographic applications too.

Art. No ..... 9706100-00



### RTI Chamber Adapter

External module for connecting ion and DAP chambers to RTI meters. Supports ion chambers with LEMO triaxial connectors. A measuring range of 10 pA – 0.7 µA.

Art. No ..... 9730016-00



### RTI CT Dose Profiler

A pioneer at measuring CT. The RTI Dose CT Dose Profiler is used for evaluation of CT and CBCT systems. It is robust and fits into existing standard phantoms used for CTDI measurements.

Art. No ..... 9730013-00



### RTI MAS-1

The MAS-1 Probe is an invasive probe for the measurement of mA and mAs. Direct readings of mA and mAs, as well as waveform, are obtained. The simple way of invasive measurements.

Art. No ..... 9730005-00



### Soft Shell Case

A perfect solution for storing your Cobia or Piranha meter. Along with power supply, tablet and a couple of probes, your QA solution fits perfectly into this case.

Art. No ..... 9742008-00



### DAP Chamber - 86x86 mm & 147x147 mm

The DAP Chamber is the essential accessory for your dental X-ray QA kit. It is the perfect tool for field calibration. You can measure with just one click – fast, easy and accurate.

DAP Chamber 86x86 mm Art. No ..... 9705070-00  
 DAP Chamber 147x147 mm Art. No ..... 9705060-00

## Cobia accessories



### RTI MAS-2

The MAS-2 Probe is a clamp-on probe for non-invasive measurement of mA and mAs. The major advantages are that the probe is easy to use and safe. No connection inside the X-ray generator is needed. The simple way of non-invasive measurements.

Art. No ..... 9730006-00



### RTI Light Probe

Light probe for brightness measurements (luminance) on monitors and film viewing boxes as well as measurements of ambient light (illuminance) in the viewing room.

Art. No ..... 9730007-00



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

The RTI CT Ion Chamber is a rugged, cylindrical pencil-shaped vented ionization chamber. The 10 cm is intended for measuring and monitoring the exposure output level of CT scanners in a phantom or free-in-air. The 30 cm for CTDI measurement when the beam width is 4 cm or wider.

10 cm Art. No ..... 9730025-00  
 30 cm Art. No ..... 9730026-00



### Cobia Vertical Holder

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

Art. No ..... 9744011-00

## Cobia accessories



### RTI LoniMover™

The RTI LoniMover™ is the perfect tool to help you with accurate and reproducible measurements on your Cone Beam CT. Works both with a Pencil Ion Chamber or a CT Dose Profiler. Included LoniCT software works stand alone with an RTI Cobia FLEX or Cobia SENSE to record measured data.

Art. No ..... 9730030-00

# 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.



INDEPENDENT X-RAY  
QUALITY ASSURANCE