

# Cobia

FLEX

## Cobia Flex – Flexible X-ray Quality Control

The Cobia Flex offers you the convenience to make your X-ray Quality Control as quick and accurate as possible. It's just as easy as the Cobia Smart but with more possibilities. The Cobia Flex has an internal detector, offers ability to connect different probes and ion chambers, and has built-in mAs. The measured values can be read directly from the large and clear display, and stored in the Cobia Flex to read later.



# FLEXIBLE AND EASY X-RAY QC

## COBIA FLEX MAKES ADVANCED QC EASY

Cobia Flex offers you all possibilities with an ease of use to make your X-ray Quality Control as quick and accurate as possible. It's just as easy as a Cobia Smart but with more possibilities. The Cobia Flex has an internal detector, offers the possibility to connect different probes, ion chambers and has built-in mAs. The measured values can be read directly from Cobia Flex's large and clear display, or stored in the Cobia and read after all your measurements.

## EASY TO USE NOW WITH MORE POSSIBILITIES

We've made the complex simple. Cobia Flex is a straightforward and simple-to-use instrument for checking that the output from an X-ray tube is correct. The measured values can be read directly from Cobia Flex's large and clear display or stored in the Cobia and read after all your measurements. Cobia Flex has a practical log function that allows you to store all your readings\*.

*\* From August also with Ocean compatibility that makes it possible for you to make reports, have analyses and export to Excel.*

## STRAIGHTFORWARD AND TROUBLE-FREE

When we created the Cobia Family, our goal was to develop a straightforward instrument that everyone who needs to make reliable Quality Control can use. RTI has over 30 years of experience in the manufacture of X-ray detectors, and Cobia Flex is a direct implementation of our advanced technical knowledge coupled with what we have learned in the field.

## UPDATES FOR YOU

Our development is ongoing and continuous at RTI, when you're a part of the RTI family you'll always receive updates and improvements to keep your instruments current. We will offer you the latest technology along the way, always making sure you have the best conditions on the market for reliable Quality Control and Quality Control.

**2 year manufacturer's warranty** with the option of extending it for up to 10 years.

**A straightforward** and trouble-free instrument that anyone could use – no adjustments are needed.

**Plug & Play** probe identification.

**Large, rotatable and sharp display** allowing results to be read clearly and easily from a distance.

**Translatable user interface.** As well as English, you can choose to run Cobia Flex in several languages. This can easily be selected via the Cobia menu.

**History.** The Cobia Flex will save your 100 latest measurements.



## COBIA FLEX WITH BUILT-IN MAS

The Cobia Flex offers direct reading of mA (tube current) and mAs in a very easy and convenient way. With its built-in mAs function you only have to plug in the mAs cables from your Cobia into mAs socket of the X-ray generator.

# COBIA FLEX FEATURE LIST

## NO POSITION DEPENDENCE MAKES YOUR QC ACCURATE

The Cobia Flex has no position dependence, just place it under the beam and make sure the detector area is irradiated. It is easy for everyone to use and gives you an accurate result. If you need to use a probe you just plug it in and the Cobia Flex will notice automatically.

## FOR YOUR FAST BUT MORE ADVANCED MEASUREMENTS

With Cobia Flex there is no need to reset between your measurements, so you can stay in the control room until all your measurements are made. The practical log function makes it possible for you to read your measurements when you have the time.

## BUILD TO SUIT YOUR SPECIFIC NEEDS

With the internal detector of your Cobia Flex you can measure dose, dose rate, kV, HVL, TF and Time. Internal mAs is standard but can be deselected if not required. Our selection of external probes gives you several opportunities to make the Cobia Flex suit your specific needs.

## COBIA FLEX IN DIFFERENT LANGUAGES

As well as English, you can choose to run your Cobia Flex 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.

## COBIA FLEX HIGH LIGHT LIST

- Easy to position, no position dependence
- Large rotatable display
- Log/history function
- Measures pulsed radiation
- Full Auto range (kV, TF and Sensitivity)
- Built-in mAs
- Plug and play
- Bluetooth and USB communication
- Solid-state detectors = no need to compensate for temperature & pressure
- Built-in energy compensation
- Can be used together with ion chambers
- Automatic recognition of external probes
- Long-lasting rechargeable battery
- Always free firmware upgrades
- Firmware is easily updated via Internet or CD
- Upgradable to any model you want
- Up to 10-year warranty
- 2-year Calibration Cycle



## UP TO 10 YEARS WARRANTY

Cobia Flex is calibrated by an accredited X-ray lab and comes with an automatic 2-year manufacturer's warranty when purchased new, with the option of an extended warranty of up to 10 years.

You can feel confident with your Cobia Flex for a long time!

# OUR PROMISE TO YOU

## WE ARE COMMITTED TO A LONG TIME RELATIONSHIP

We offer more than just measuring instruments. We'd like to be your partner and help you in your daily work. We want you to trust and count on us. We promise to do our best to make it easy for you in your everyday working life.

As an owner and user of any RTI product, you are guaranteed to always receive prompt and professional support if required. Our large distributor network provides the opportunity of support in your own language.

Upgrade as needs arise. You can easily expand, improve and renew your instrument. Because we want you to be happy with your instrument to suit your needs or changing workflow requirements. Speak with your local salesperson about your upgrade requirements.

## 2-YEAR CALIBRATION CYCLE

To make it convenient for you, we offer to keep track of when your instrument needs to be sent in for calibration. We will send you a reminder via e-mail two months before so you can plan your work and schedule the calibration on time. RTI Electronics is accredited in compliance with ISO/IEC 17025:2005 and certified according to ISO 9001:2008. This is a guarantee that our assignment is carried out impartially, fairly and based on internationally accepted standards.

Our calibration provides third-party assurance that we have the quality management system to ensure all of our calibrations to be consistently of the highest quality.

## 10-YEAR WARRANTY

Each product comes with a 24 month factory warranty. By joining the RTI Extended Warranty Program you will have the opportunity to increase your warranty 2 years at a time – for up to 10 years.



2021  
ISO/IEC 17025





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# COBIA FLEX CASES

## SOFT SHELL

RTI's Soft Shell Case is a perfect solution for storage and transportation of your Cobia Flex and a selection of its accessories. The soft shell case comes as a standard with the Cobia Flex, and is the perfect light-weight carrier for it.



## LIGHT-WEIGHT

Made of light-weight aluminum, the Cobia Flex ALU Case is attractive and just “the right size” to provide space for the Cobia Flex and all its accessories included in the popular Cobia Flex Premium Kit. This case gives the Cobia Flex user the perfect solution for transporting and storing the RTI X-ray QC test tools. Imagination and foresight are evident in this solution.

Open the two latches, and lift up the lid. You will notice the sturdy foam in the top of the case and in its sides. This helps keep each Cobia Flex 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 space in the bottom level.



# SPECIFICATIONS COBIA FLEX

## Cobia Flex General

Weight Approx	290 g
Size	138 x 76 x 27 mm <sup>3</sup>
Power source	Int. battery / ext. power supply
Battery life	10 – 20 hours
Display	Color, 320x240 pixel
Min. exp. time	0.1 ms
Sensitivity	0.2 mA @ 50 kV, 50 cm (3 mm Al)

## Internal mAs

Ranges	0.1 – 999 mAs, 1 mA – 999 mA
	0.01 – 999 mAs/p, 1 – 999 mA/p
Inaccuracy	±3 % or ±0.1 mA

## Cobia Flex Measuring Parameters

Parameter	Range	Inaccuracy
Tube volt.	38 – 155 kVp	±2 %
Time	0 ms – 2000 s	±1 % or ±0.33 ms
	3 – 9999 pulses	–
Dose	60 nGy – 1700 Gy	±5 %
	7 µR – 200 kR	±5 %
Dose rate	2.5 µGy/s – 175 mGy/s	±5 % or ±200 nGy/s
	0.3 mR/s – 20 R/s	±5 % or ±20 µR/s
	17 mR/min – 1200 R/min	±5 % or ±1 mR/min
	1 R/h – 70 kR/h	±5 % or ±70 mR/h
Auto-Comp.	1.5 mm Al – 1.4 mm Cu	N/A

Parameter	Range	Inaccuracy
HVL	1.2 – 14 mm Al	±10 % or ±0.2 mm
Total Filtration	1.0 – 55 mm Al	±10 % or ±0.3 mm Al
Pulse frequency	1/6 – 260 Hz	±5 % or ±0.2 Hz
Dose/pulse	10 nGy/p – 1 Gy/p	±5 %
	1.1 µR/p – 120 R/p	±5 %
Effective time	0 ms – 1999 s	±1 % or ±0.33 ms



## ACCESSORIES

### RTI DOSE PROBE

RTI Dose Probe is an external dose probe, designed to perform very low dose rate measurements for instance on image intensifiers. To avoid or minimize interference with AEC (Automatic Exposure Control) on X-ray equipment, the probe is very small. This also enables to fit it into the table bucky. Since it is a solid-state detector, no corrections for pressure or temperature are needed. Neither is bias voltage.



### Specifications RTI Dose Probe (External Probe)

General		Range	Inaccuracy
Backscatter protected	Yes	5 nGy – 2 kGy, 0.6 µR – 250 kR	±5 %
Size	20 x 45 x 7.4 mm <sup>3</sup> , 0.79 x 1.8" x 0.2"	0.2 µGy/s – 200 mGy/s, 0.5 mR/min – 1.5 kR/h	±5 %
Pulse frequency	1/6 – 260 Hz	1 nGy/p – 1600 mGy/p, 0.1 µR/p – 180 R/p	±5 %
		0.2 µGy/sp – 200 mGy/sp, 0.5 mR/min – 1.5 kR/h	±5 %

The **MAS-2** is clamped easily on the high voltage cable. No connection inside the X-ray generator is required. Connected to the Cobia Flex, the MAS-2 is ready for non-invasive measurements, reading mA, mAs, and capturing an mA waveform.



### Specifications MAS-2

Ranges	0.1 mAs–999.9 As, 10 mA–4000 mA
Inaccuracy	±5 % or ±2 mA

The **DCT10** is a rugged, cylindrical pencil shaped air ionization chamber for CTDI measurements. The CT chamber is intended for measuring and monitoring the exposure output level of CT scanners in a phantom or in air. CT dose index, CTDI, can be measured in accordance with IEC 61223-2-6.



### Specifications DCT10

Dose length with pencil ion chamber (CT) and Chamber Adapter	
Dose length rate	0.5 mGycm/s to 1.7 Gycm/s, ±6 %
Inaccuracy	±6 % or ±0.08 mGycm/s

The **T20** is a solid state detector dedicated for measurements on radiographic and fluoroscopic systems when it is crucial that the detector itself does not have any effect on the system. This probes main task is measurements of the skin entrance dose and maximum dose rate in the radiographic and fluoroscopic field. T20 can be placed anywhere in the X-ray field and has a built-in correction filter which allows the detector to self-compensate for different beam energies.



The **Light Probe** measures the ambient light in the room as well as the brightness on monitors and film viewing boxes.

The RTI Light Probe has the same spectral response as the human eye and complies with the CIE curve. This makes it reliable for all kind of measurements, independent of the light source.



### Specifications Light Probe

Monitor, viewing box	
Ranges	0.20 cd/m <sup>2</sup> – 150 kcd/m <sup>2</sup>
Inaccuracy	±5 %
Ambient light	
Ranges	0.08 lx – 70 klx
Inaccuracy	±5 %

The **Chamber Adapter** makes it possible to use Ion Chambers with the Cobia Flex. It is primarily designed for Mammography and CT use, but can of course be used for other applications as well.



### Specifications Chamber Adapter

Current Ranges	10 pA to 0.1 μA
	±2 % or ±1 pA

### Specifications T20

Dose	35 nGy–15 kGy, 4 μR–1700 kR
Dose rate	1.5 μGy/s – 1500 mGy/s
	10 mR/min – 10 kR/min
Dose per pulse	5 nGy/pulse–11 Gy/pulse, 0.6 μR/pulse – 1.3 kR/pulse
Inaccuracy	±5 %
Backscatter protected	Yes
Size	25 x 5 square millimeter
Length	318 mm (rod & detector)



## FIND YOUR LOCAL DISTRIBUTOR AT [WWW.RTI.SE](http://WWW.RTI.SE)

We offer more than just measuring instruments. We'd like to be your partner and help you in your daily work. We want you to trust us and count on us. We promise to do our best to make it easier for you in your everyday working life.

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