

# MINIGITA DUAL

## RADIO-TLC FOR SPECT AND PET

### THE BEST CHOICE FOR ISOTOPE DETECTION AND DETERMINATION

- SPECTRUM & TLC ANALYSIS
- FULLY-AUTOMATIC SETTING CONTROL
- BEST SENSITIVITY / RESOLUTION RATIO
- FULLY GMP COMPLIANT



The miniGITA Dual is a versatile state-of-the-art radio TLC system. A complete range of detector probes allow the measurement of nearly every isotope. It is designed for optimal use in nuclear medicine, SPECT or PET laboratories.

The dual head with different collimators and detection technologies allows you to adjust the system to be used as a high-end TLC scanner and to perform a multichannel analysis just in one go. This versatility ensures best detection capability and best signal to noise ratio with optimal resolution and superb quality of spectrum scans on a TLC scanner.

Testing the radiochemical purity with thin layer chromatography and the execution of basic gamma spectrometry are routine for many nuclear medicine laboratories and SPECT or PET facilities.

Having a reliable, easy-to-use system, fulfilling the current standards in GMP and documentation rules is mandatory for optimal working conditions.

By nature of the measurement scanning resolution, sensitivity, limit of detection, dynamic range and spectrum analysis need antipodal technical solutions.

The complete miniGITA Dual was designed to be as flexible and adjustable as possible, to ensure that you always get the highest performance and the best compromise depending on your actual application.

To avoid human errors and to be fully GMP compliant all settings and configurations will be detected automatically and stored in the electronic report. Probe type, probe distance and even the collimator type are registered.

The miniGITA Dual ensures a large versatility and the best possible integration into your lab.

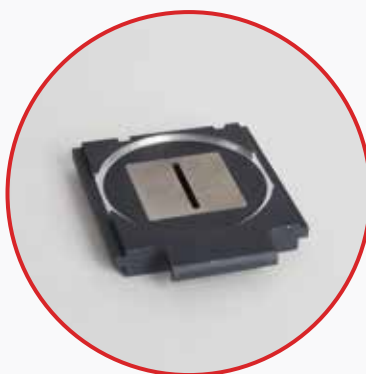
## DETECTORS

We have a complete line of new generation probes using different scintillator material and different detection technologies. We propose systems with well-established PMT tubes as well as totally new digital detection technologies, ensuring the best detection for each application.

The miniGITA Dual uses also the Elysia Communication protocol, with a new type of connectors. Simply change the detector/probe and the System will recognize the type and the serial number of your detector. This will give you a perfect documentation of your setup and enhance your GxP tools.

But the new cable and communication protocol gives even more versatility because it will allow to exchange probes with all other measuring instruments like the TLC or the multichannel analyzer using the ECP (Elysia Communication Protocol). The new ECP allow also advanced control and diagnostic of your probes to ensure a better performance and a remote diagnostic.

Model	Application	Spatial Resolution	Dynamic Range	Spectrum	Collimator
MiniGITA OFA probe	SPECT & PET	★★★★	★★★★	★★★	Yes
MiniGITA PET probe	PET	★★★★★	★★★★	---	No
MiniGITA New Gen probe	SPECT & PET	★★★★	★★★★	★★	Yes
MiniGITA 3SA probe	SPECT & PET Spectrum	★	---	★★★★★	No
MiniGITA Alpha probe	Alpha	★★★★	★★★	---	Yes



## PROBE TYPES



### miniGITA OFA (One-fits-all) probe

The ONE-FITS-ALL is based on our well-known V-Shaped BGO technology. The crystal allows to detect SPECT and PET isotopes. The special V-shape gives best resolution without any loss of sensitivity. A broad range of collimators allows to adapt the probe to a large energy band.

The detector has also a multichannel function and is suitable for basic spectrum scans.

### miniGITA PET probe

The probe has been designed for use in a PET laboratory. The scintillator and the digital detector technology allow a very high resolution and a high sensitivity to positrons. High insensitivity to gamma radiation and an extremely high dynamic range ensure very low background noise to gamma irradiation and the possibility to handle high amounts of activity. These skills make the detector the right choice for every PET facility.

### miniGITA New Gen probe

As the OFA, the New Gen probe is based on a V-Shaped BGO probe ensuring best resolution with high sensitivity to SPECT and PET isotopes. The probe is using the new electronics with increased dynamic range allowing to use higher activities without signal saturation. A broad range of collimators allows to adapt the probe to a large energy band.

### miniGITA 3SA probe

The miniGITA **S**elf **S**hielded **S**pectrum **A**nalysis probe has been designed to obtain an optimal spectrum analysis when paired with our TLC scanner. To eliminate background issues, the probe is self-shielded. As with all miniGITA probes, it uses the ECP and can be used in combination with several other Elysia instruments. The in-built high quality PMT is the best choice for spectrum analysis and nucleic identification.

### miniGITA Alpha probe

The miniGITA Alpha probe has been designed to offer optimal Alpha Sensitivity when paired with our TLC scanner. The probe is based on ZnS(Tl) scintillator connected to a SiPM, combining a high efficiency for Alpha radiation and a Low Background for Beta and Gamma. As all miniGITA probes, it uses the ECP and can be used in combination with several other Elysia instruments.

## COLLIMATORS



To avoid human mistakes and to obtain the best collimation, the miniGITA Dual has tungsten collimators with an automatic recognition for GMP documentation.

miniGITA Dual collimator: 0-60 keV

miniGITA Dual collimator: 60-250 keV

miniGITA Dual collimator: 250-450 keV

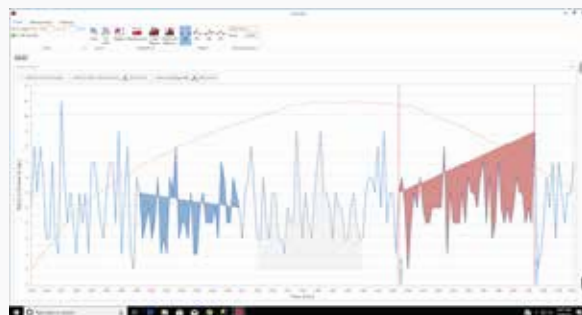
miniGITA Dual collimator: > 450 keV

## SOFTWARE



Our miniGITA Dual is directly controlled with GINA with a digital signal transfer according to GMP/GLP standards. The same software package can be upgraded to control the radio-HPLC, the GC or the multichannel analyzer. This will allow a high flexibility in your lab, a faster user adaptation and a short learning curve.

Background subtraction, a half-life-time correction and dead time correction are only some of the features included.



## Technical Specifications

Probe holder	up to 2 probes, with automatic probe recognition
Collimators	5, 10, 15, 20mm tungsten collimators with automatic recognition
Scan area	25 x 200mm
Scan time	selectable
Probe/detector	miniGITA OFA, PET, NewGen, 3SA and Alpha probe
Energy range	30 – 2000 keV
Count rate	0 – 500.000 (OFA, 3SA); 0-1.000.000 cps (PET, NewGen)
Linearity	0 – 600.000 cps $r^2 \geq 0.99$ (PET, NewGen)
Communication	USB2.0 and 10/100 Ethernet

## Physical Specifications

Dimensions	L64xH28xW22 cm
Weight	+/- 18.40 kg (without detector)



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