



Annual Users' Conference

**ADVANCING RADIATION SAFETY.
EMPOWERING PROGRESS.**

M Resort, Henderson, NV | June 15 – June 18



MIRION
TECHNOLOGIES

*Advancing Radiation Safety.
Empowering Progress.*

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**Scan QR code to log your
attendance for today's
(Thursday, June 18th)
breakout session**



RDS-32TM Meter, Probes and CSPevo[®] Family Expansion

James Parkin

Business Line VP for HP, Defence & Imaging

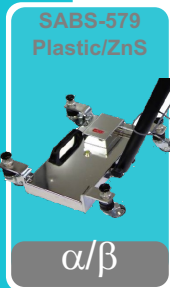
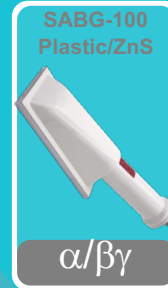
Mirion Connect | Annual Users' Conference 2026

Henderson, NV

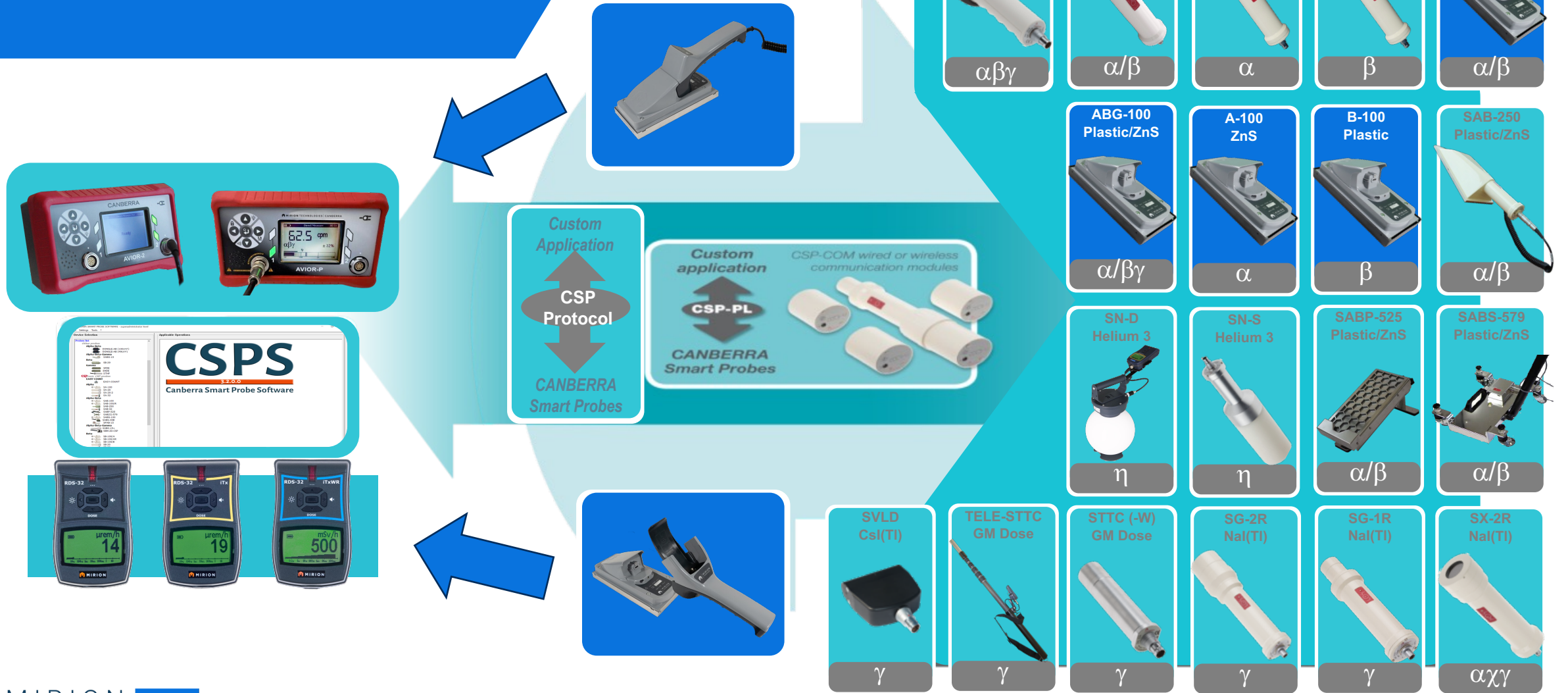
Summary

- *Eco-system Introduction*
- *CSPevo Expansion*
- *LightLink Technology*
- *New CSP product: SVHD*
- *New GMP-15S probe*
- *TELE-GMP new pole*
- *RDS-32 FW update*
- *RDS-32 App update*

Hand-Held Eco-System



Transitioning to CSpEvo[®]



LightLink[®] Technology





POWERED BY *LightLink*[®]

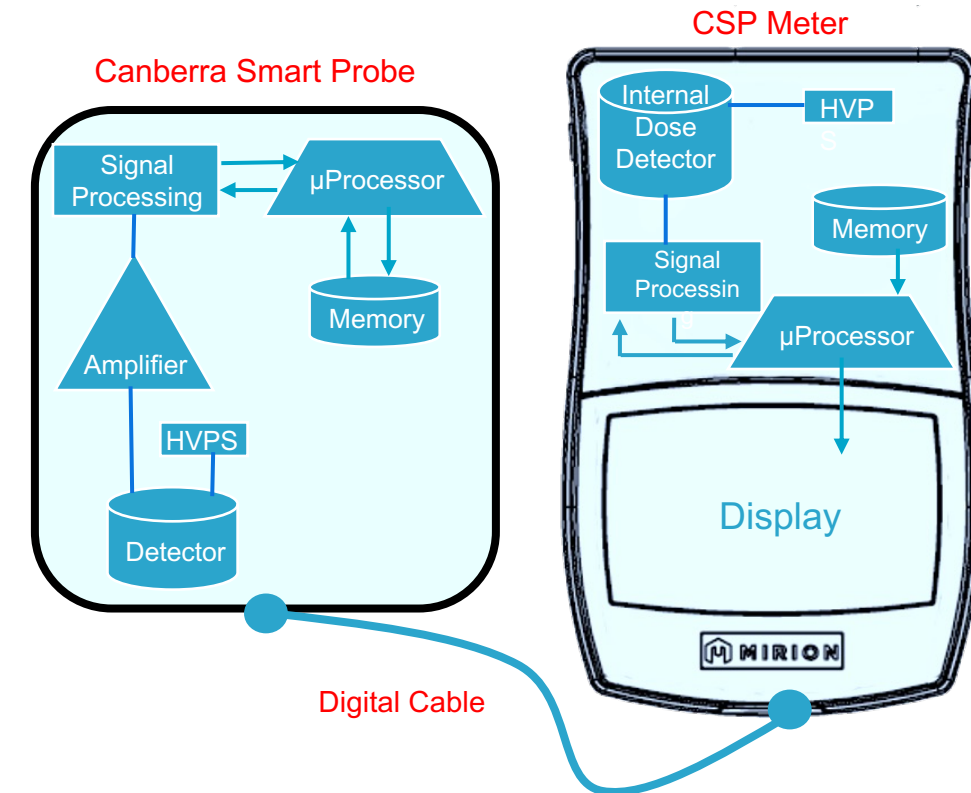
- *Next-Generation Core Technology**
- *Reliable & Robust*
- *Hyper Accurate*
- *Easily Integrated*

THE SMART APPROACH



CSPevo®
POWERED BY LIGHTLink®

- Fully integrated solution for hand-held health physics
- Maximize efficiency and reduce Total Cost of Ownership
 - Wide range of dose rate and contamination probes
 - Solutions to suit many applications
 - Multipurpose meter with scalable features
 - Maximize training and expertise
 - Plug any Canberra Smart Probe (CSP) to any CSP compatible survey meter
 - No further setup required, no need to re-calibrate the instrument
 - Each probe is self-contained and separately calibrated with computer
 - Extremely efficient power consumption
 - Supports direct connection to a laptop USB port via Canberra Smart Probe Software (CSPS)
 - Perform daily checks and/or calibration
 - Enables the host instrument to remain in use
 - Digital communication – minimizes cable quality issues
 - Easily use CSP probes in third party systems with CSP-PL programming library
 - Speeds up and simplifies custom developments



CSPevo Key Benefits

A Problem Solving Approach

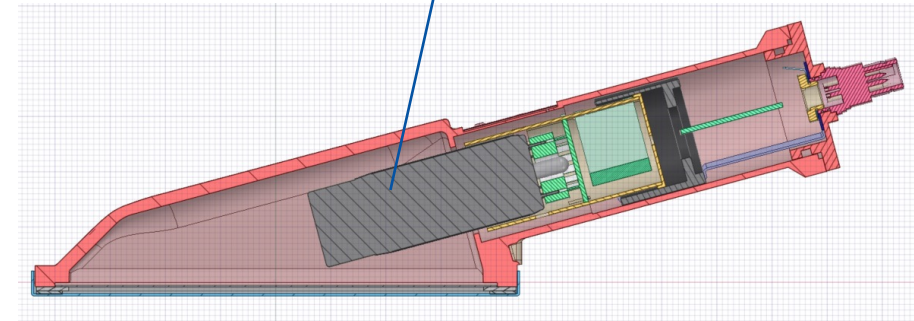


Many contamination probes use PMT*

- *Problem with PMT**

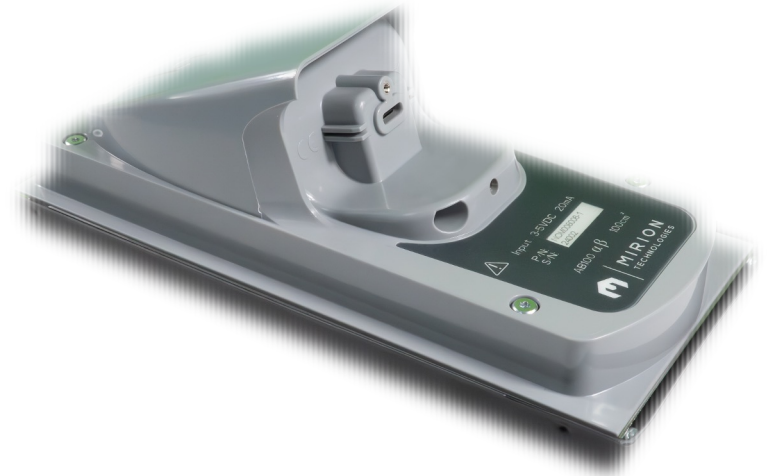
- ✗ *Breaks when Shocked*
- ✗ *Requires earth magnetic protection (adding weight)*
- ✗ *Light collection*
 - *Big enclosure*
 - *Mediocre surface detection homogeneity*
- ✗ *Waiting time after entrance window replacement*
 - *Light decay to avoid burning the PMT – up to few hours*
- ✗ *Microphonics*
- ✗ *Drives handle use (no real choice!)*
- ✗ *Difficult to integrate in systems*
 - *Mechanical arrangement*
 - *Shielding*

PMT = Fragile Glass Tube



(*) *PhotoMultiplier Tube*

- *Integration of LighLink[®] in replacement to PMT**
 - ✓ *More durable in the field (Drop Proof)*
 - ✓ *No additional protection material needed*
 - ✓ *More efficient light collection*
 - *flat enclosure*
 - *Improved surface detection homogeneity*
 - ✓ *Entrance window replacement does not require more than 10 min before going back to operation*
 - *Quicker available in the field*
 - ✓ *No microphonics*
 - ✓ *Handle is designed with no constraint other than ergonomics*
 - ✓ *Detection module is easy to integrate into system*
 - *Mosaic arrangement with minimal dead area*
 - *Optimized shielding volume*



(*) *PhotoMultiplier Tube*

CSPevo details



POWERED BY
LightLink®



CSPevo introduction



➤ A New 100 cm² detector

- Fragile PMT is replaced by LightLink®
 - Detection area uniformity is improved up to 85%
 - Minimized dead area with protection grid
 - Handle is designed to serve as a handle
 - ✓ No more a consequence of PMT placement
- Detector alone can be used into third party system
 - USB-C connection
 - ✓ Data transfer to host system
 - ✓ Calibration with CSPA

➤ A set of handles to adapt to meter usage and leverage installed base

- CSPevo is 100% compatible with CSP meter already in the field
 - No need to upgrade meter firmware
- RDS-32 based one hand configuration
 - No cable needed

*One smart
detector fits all*



One Hand



One Probe



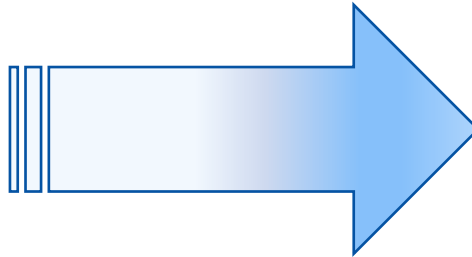
One System



FROM CSP to CSPevo



- Economical solution
 - S-100 required additional cable
 - Handle now includes the cable



ONE HAND OPERATIONAL SYSTEM

- *CSPevo with RDS-32*
 - *No cable needed*

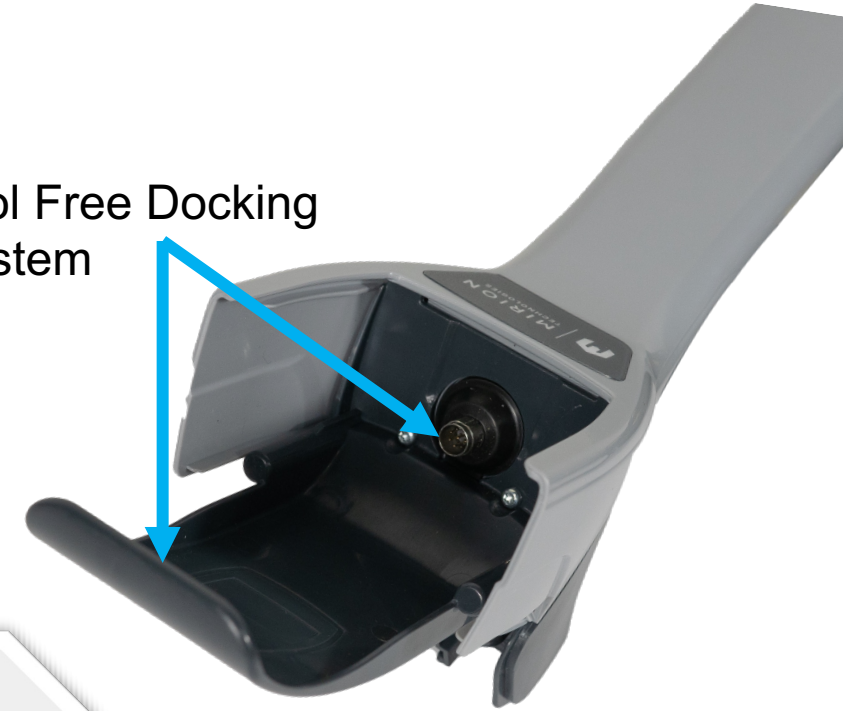


ONE HAND OPERATIONAL SYSTEM

- *CSPevo for RDS-32*
 - *One screw to lock handle on the detector*
 - *Simple RDS-32 sliding into handle*



Tool Free Docking
System

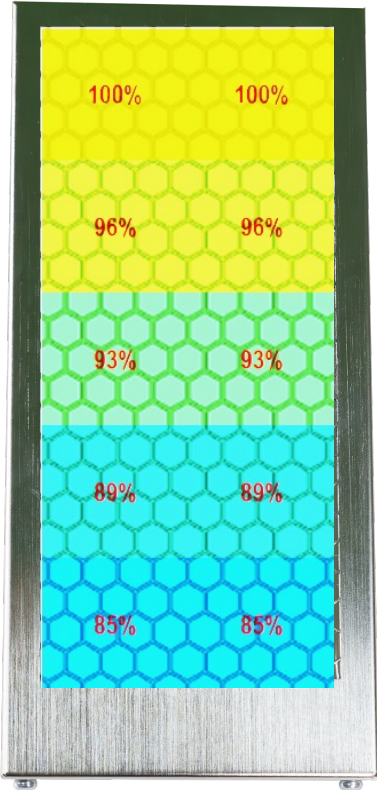


USB CONNECTIVITY

- *USB-C connector*
 - *COTS cable*
 - *Handle to Detector connection*
 - *Detector to PC*
 - *Calibration and setup with CSPA software*
 - *Integration into third party systems*

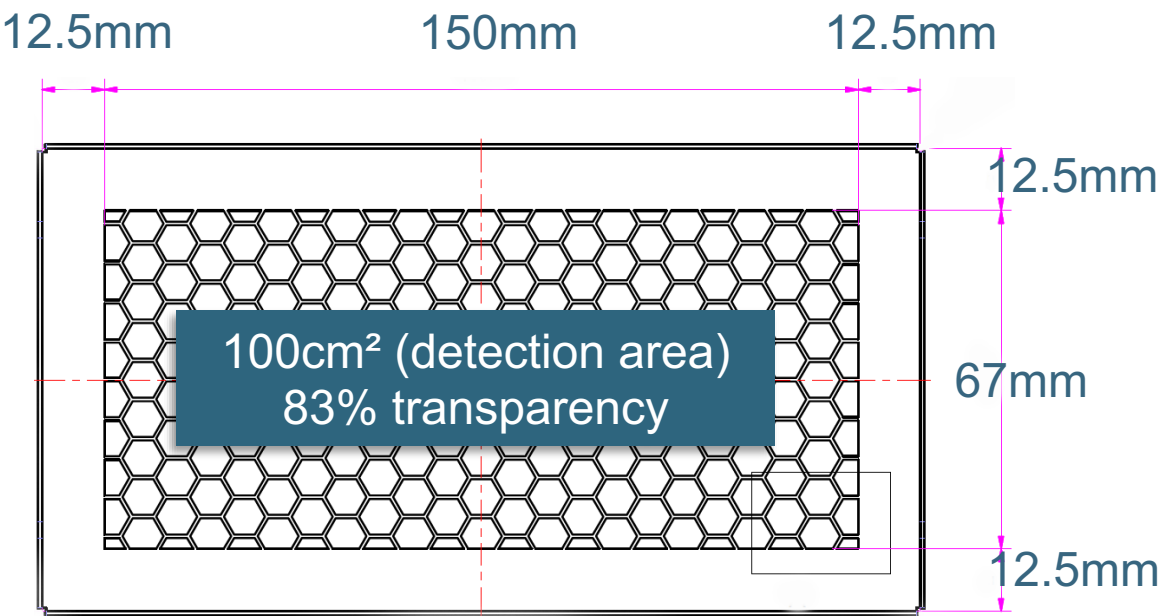
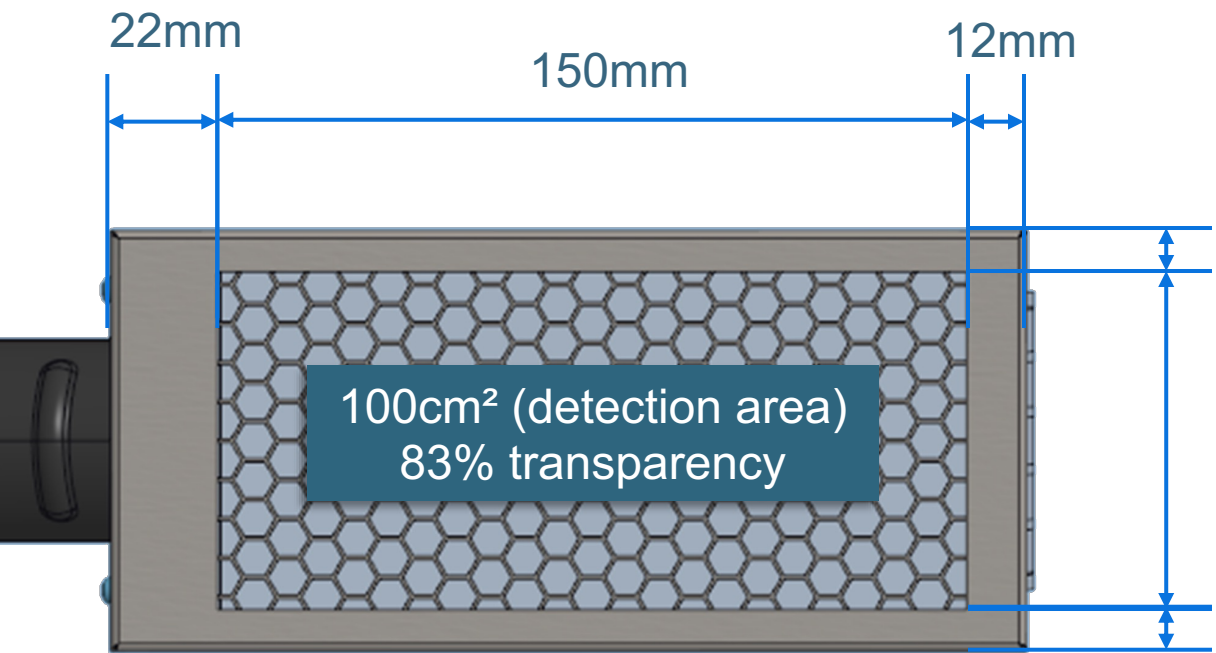


DETECTION AREA HOMOGENEITY



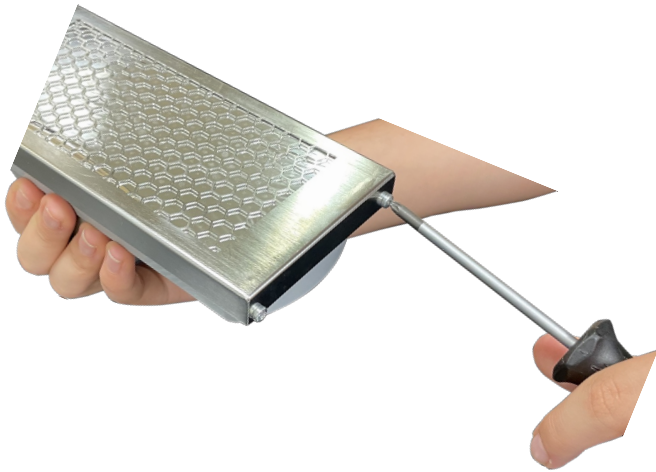
- Improved Beta detection uniformity
 - Better than 85%
 - Referenced to IEC60325 method
 - ✓ Minimum requirement > 50%
 - Makes more consistent measurements in the field
 - Frisking or smear measurement
 - ✓ Less than 15% error regardless of position

PROTECTION GRID



PROTECTION GRID AND MYLAR

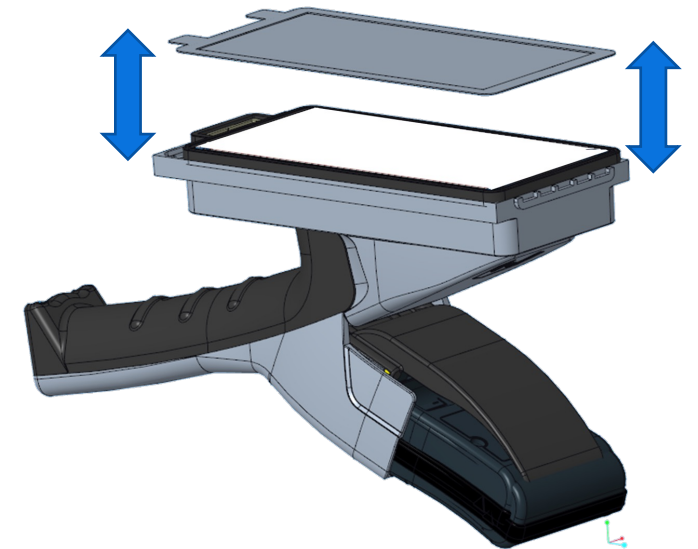
1 : Remove both screws



2 : Remove the grid



3 : Remove the mylar window



- Mylar on frame
 - No tool needed



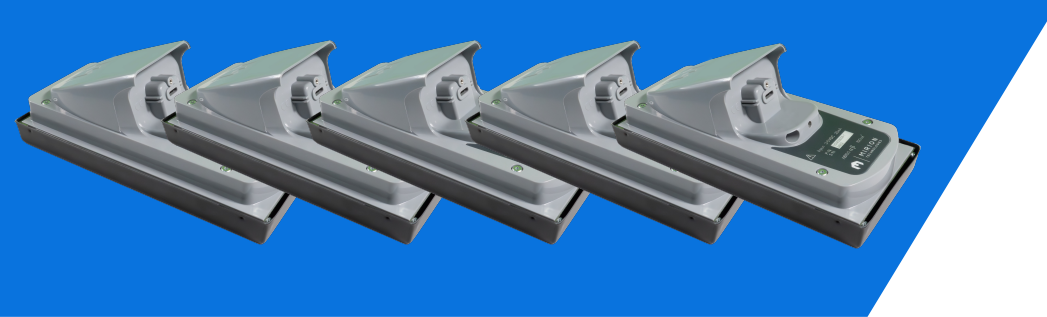
10 minutes only for mylar replacement before going back to operation.



Hours of light decay is required with PMT

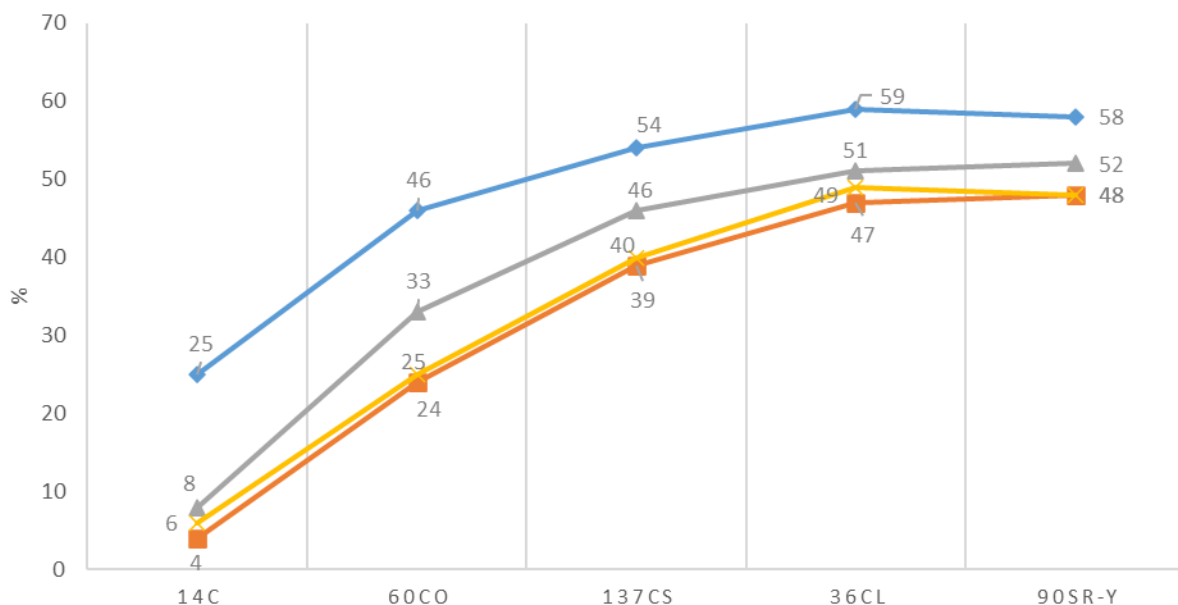
Detection Modules Specifics





CSpEvo 100cm² Beta Typical Efficiencies

—◆— B-100A —■— B-100B —▲— ABG-100 —✕— AB-100



- **B-100/A:** Exceptional beta efficiency down to C-14 but no alpha discrimination
- **ABG-100:** Improved beta and low gamma energies efficiencies
- **AB-100:** Less sensitive to background increase
- **B-100/B:** Good Alpha discrimination but lower beta efficiency
- **A-100:** Negligible gamma influence in high dose-rate areas

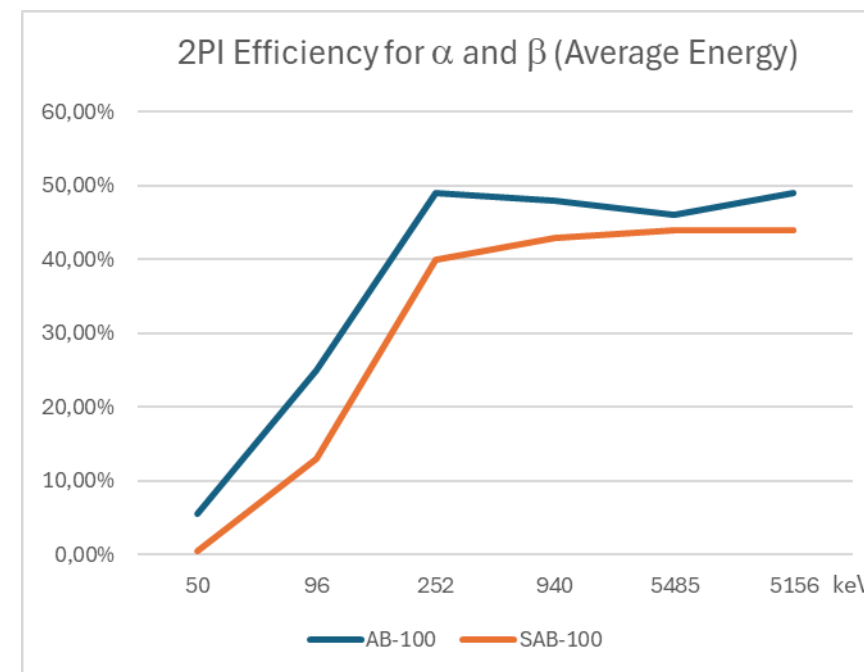
AB-100 vs SAB-100

Released 2025



- Plastic Scintillator 0.25 mm
- ZnS(Ag) layer
- Mylar window: 6 μ m

	AB-100 + RDS-I HANDLE	SAB-100
Weight	560 g (20 oz)	710 g (25 oz)
Beta Detection Homogeneity	> 85%	>50%
Alpha Detection Homogeneity	> 85%	>70%
Alpha Max Count-rate	10 KCPS - 600 KCPM	10 KCPS -600 KCPM
Beta Max Count-rate	100 KCPS - 6,000 KPM	
C-14 Efficiency (50 kev)	5,50%	0,50%
Co-60 efficiency (96 keV)	25%	13%
Cl-36 Efficiency (252 keV)	49%	40%
Sr/Y-90 (940 keV)	48%	43%
Am-241	46%	44%
Pu-239	49%	44%
Beta to Alpha Crosstalk	<0.1%	
Alpha to Beta Crosstalk	<5%	
Battery Life with RDS-32	180 hours	65 hours
Ingress Protection	IP53	IP20
Operational Voltage	+ 5V and +3.3V	+5V
Operating Temperature	-20°C to +50°C (-4 °F to 122 °F)	



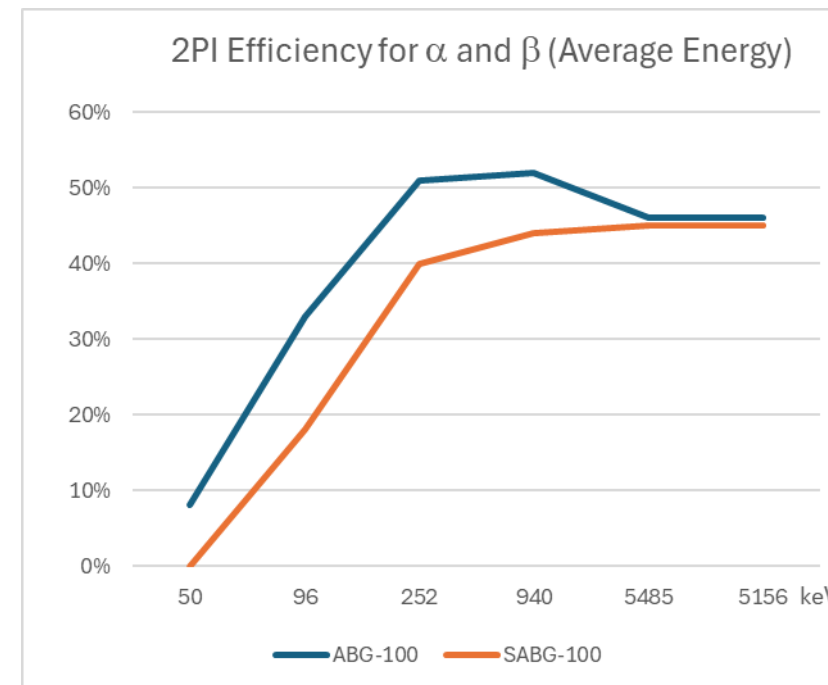
ABG-100 vs SABG-100

Coming 2026



- Plastic Scintillator 1.5 mm
- ZnS(Ag) layer
- Mylar window: 6 μ m

	ABG-100 + RDS-I HANDLE	SABG-100
Weight	560 g (20 oz)	710 g (25 oz)
Beta Detection Homogeneity	> 85%	>70%
Alpha Detection Homogeneity	> 85%	>70%
Alpha Max Count-rate	10 KCPS - 600 KCPM	10 KCPS -600 KCPM
Beta Max Count-rate	100 KCPS - 6,000 KPM	
C-14 Efficiency (50 keV)	8%	0.5%
Co-60 efficiency (96 keV)	33%	18%
Cl-36 Efficiency (252 keV)	51%	40%
Sr/Y-90 (940 keV)	52%	44%
Am-241	46%	45%
Pu-239	46%	45%
Beta to Alpha Crosstalk	<0.1%	
Alpha to Beta Crosstalk	<5%	
Battery Life with RDS-32	180 hours	65 hours
Ingress Protection	IP53	IP20
Operational Voltage	+ 5V and +3.3V	+5V
Operating Temperature	-20°C to +50°C (-4 °F to 122 °F)	



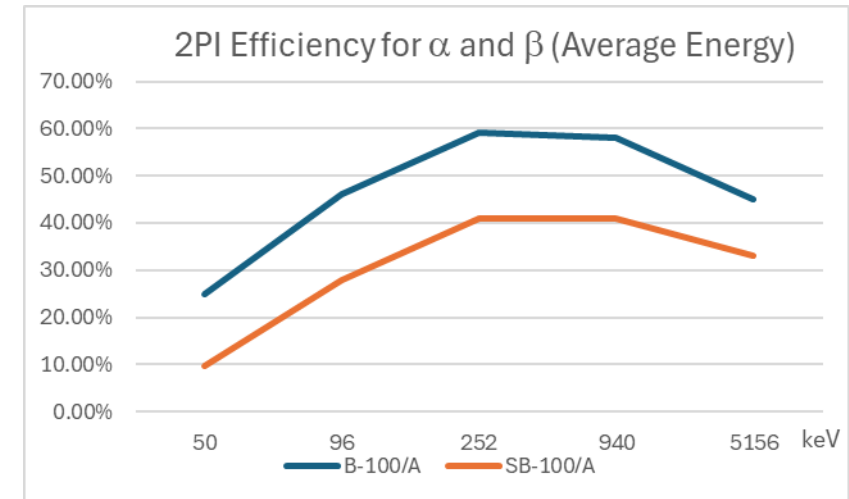
B-100/A vs SB-100/A

Coming 2026



- Plastic Scintillator 0.25 mm
- Mylar window: 6 μ m
 - Alpha+Beta

	B-100/A + RDS-I HANDLE	SB-100/A
Weight	560 g (20 oz)	710 g (25 oz)
Beta Detection Homogeneity	> 85%	>55%
Beta Max Count-rate	100 KCPS - 6,000 KPM	10 KCPS -600 KCPM
C-14 Efficiency (50 kev)	25%	9.80%
Co-60 efficiency (96 keV)	46%	28%
Cl-36 Efficiency (252 keV)	59%	41%
Sr/Y-90 (940 keV)	58%	41%
Pu-239	45%	33%
Battery Life with RDS-32	180 hours	65 hours
Ingress Protection	IP53	IP20
Operational Voltage	+ 5V and +3.3V	+5V
Operating Temperature	-20°C to +50°C (-4 °F to 122 °F)	



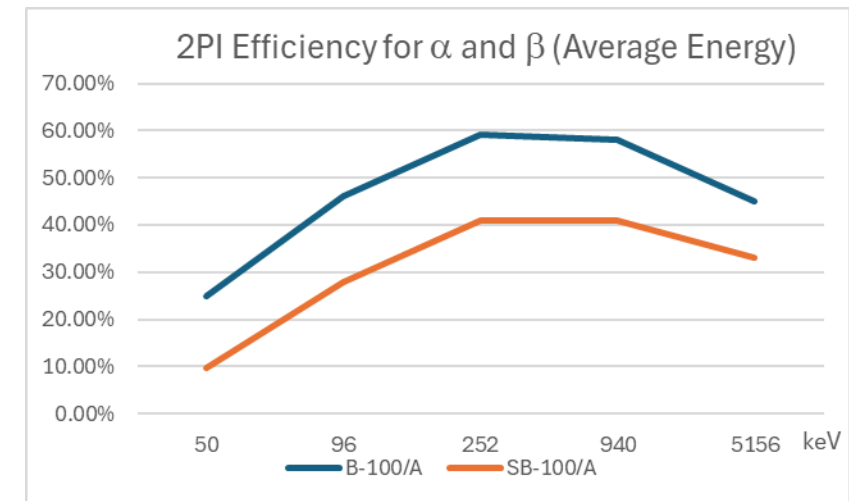
B-100/B vs SB-100/B

Coming 2026



- Plastic Scintillator 0.25 mm
- Aluminum window: 20 μm
 - Beta only (no alpha)

	B-100/B + RDS-I HANDLE	SB-100/B
Weight	560 g (20 oz)	710 g (25 oz)
Beta Detection Homogeneity	> 85%	>55%
Beta Max Count-rate	100 KCPS - 6,000 KPM	10 KCPS - 600 KCPM
Co-60 efficiency (96 keV)	24%	13%
Cl-36 Efficiency (252 keV)	47%	34%
Sr/Y-90 (940 keV)	48%	33%
Pu-239	<1%	<1%
Battery Life with RDS-32	180 hours	65 hours
Ingress Protection	IP53	IP20
Operational Voltage	+ 5V and +3.3V	+5V
Operating Temperature	-20°C to +50°C (-4 °F to 122 °F)	



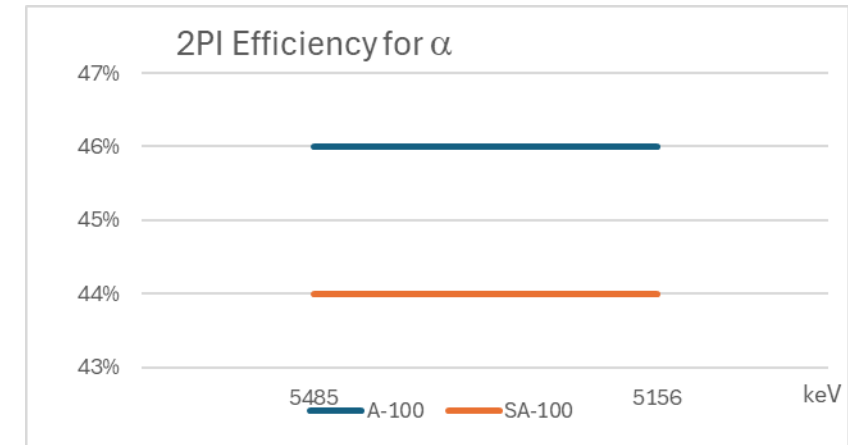
A-100 vs SA-100

Coming 2026



- ZnS(Ag) layer on 0.25 mm polyester
- Mylar window: 6 μ m

	A-100 + RDS-I HANDLE	SA-100
Weight	560 g (20 oz)	710 g (25 oz)
Alpha Detection Homogeneity	> 85%	>55%
Alpha Max Count-rate	10 KCPS - 600 KCPM	10 KCPS -600 KCPM
Am-241	46%	44%
Pu-239	46%	44%
Beta to Alpha Crosstalk	<0.01%	
Battery Life with RDS-32	180 hours	65 hours
Ingress Protection	IP53	IP20
Operational Voltage	+ 5V and +3.3V	+5V
Operating Temperature	-20°C to +50°C (-4 °F to 122 °F)	



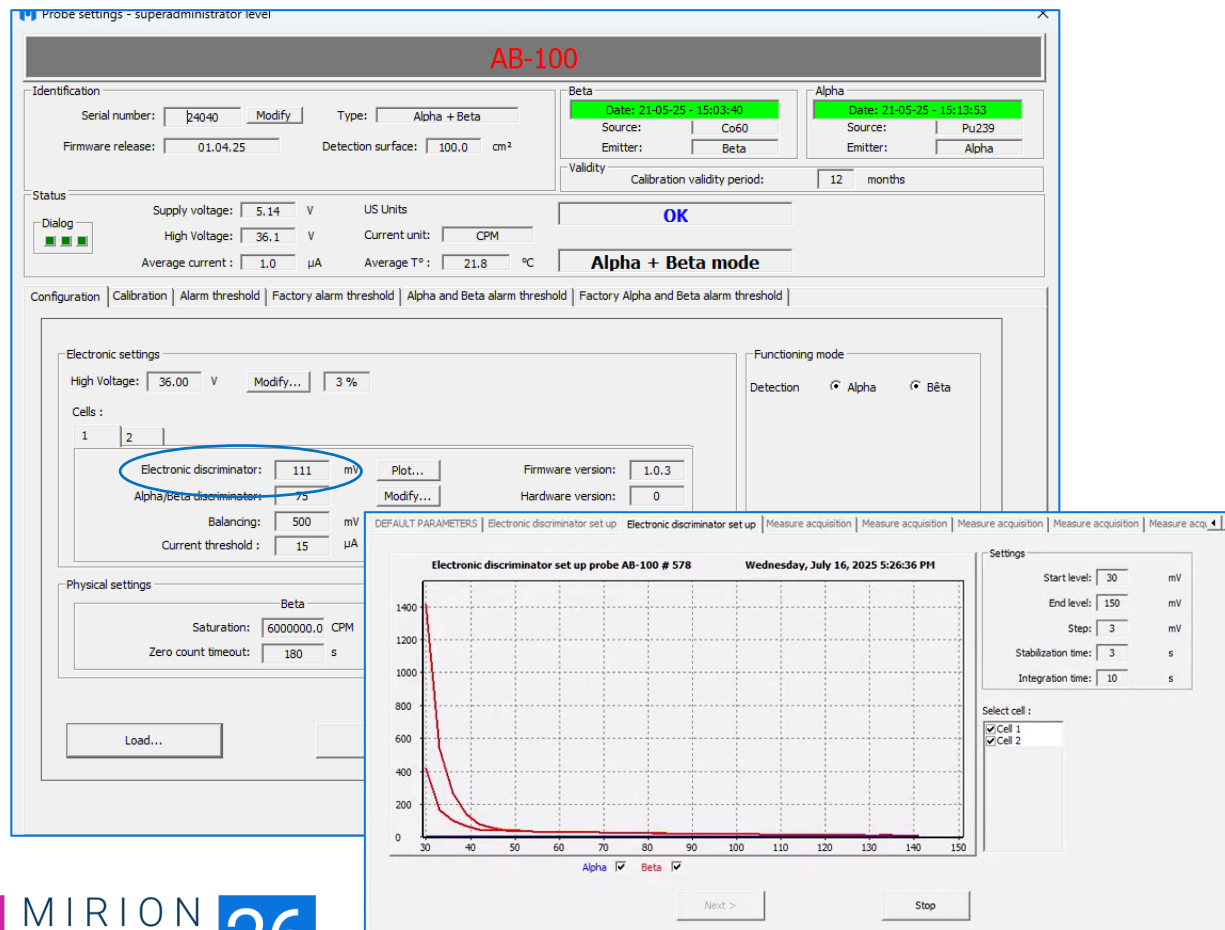
CSPS Calibration Update





Automatic Calibration with CSPS

Coming 2026



- *Electronic Discrimination setup for LightLink module*
 - *Key for Nominal temperature range of use*
- *Was driven by C-14 measurement*
- *Following user feedback about lack of such radio-isotope in Cal labs*
- *Calibration was improved and now operates on background measurement only*
 - *AB-100 can see a drop of 0.5% efficiency*
 - *No impact on other evo-100 probes*

SVHD New CSP Probe



SVHD(/W)

Released 2025



SVHD



SVHD/W

- *The SVHD(/W) probe delivers exceptional dose rate measurement capabilities – optimized for safe, precise navigation through challenging environments, ensuring reliable performance in nuclear decommissioning with SVHD or underwater applications with SVHD/W*

SVHD(/W): Common Features



- Dose-rate range
 - 1mSv/h (100 mrem/h) to 1,000 Sv/h (100 krem/h)
- Response time
 - < 2 sec with 10x increase above 1 mSv/h (100 mrem/h)
 - < 4 sec with 10x increase above 0.1 mSv/h (10 mrem/h)
- Smart CSP probe for CSP compatible Meters (RDS-32, AVIOR-2,...) and third party systems
- Dose lifespan > 5 kSv (500 krem)
- Detector head with limited components
- CSP sensitive smart electronic remote from radiation area
- 50 meters (264 ft) cable on a reel

SVHD: Two Variations

SVHD

- *D&D applications*
 - *Small Diameter of 11 mm (0.43 in.)*
 - *Easy navigation through shield plugs and S-shaped shield crossings*
 - *IP64*



SVHD/W

- *Spent Fuel Under Water Inspection*
 - *IP68 - Waterproof to 8 atm*
 - *Operates in borated water*
 - *Ballast for water submersion*



Features	SVHD	SVHD/W
Dose-rate range	100 mrem/h - 100 krem/h	
Dose lifespan	5 kSv	
Detector housing diameter	11 mm (0.43 in)	17 mm (0.67 in)
Detector housing length	101 mm (4 in)	117 mm (4.6 in)
Ingress protection	IP64	IP68 to 8 atm
CSP protocol	Yes	
CSP-PL compatible	Yes	
CSP-COM compatible	Yes	

GMP-15S

New snap-on RDS-32 probe



Released 2025

Effortless Frisking for Alpha, Beta & Gamma Radiation



*GMP-15S adapts perfectly
to your monitoring needs.*

FEATURES & BENEFITS



Snap-on design for a **secured** deployment

One-handed operation with **Cable-Free** design for increased **operator safety**

Lightweight assembly for **reduced fatigue**

Smart Plug&Play Probe for improved **flexibility** and **availability**

Simultaneous Contamination and Dose-rate display for **user awareness**

Automatic Probe Recognition with display rotation for **immediate reading**

FEATURES & BENEFITS



Floating Connector for Easy Alignment with RDS-32

Side Brackets Lock RDS-32 in Place for Robust Mounting with no tool

Protective Grid and Molded Housing for IP42 Rating

Drop Resistance (1 meter on concrete) for Increased Lifespan

Compatible with All RDS-32 with Firmware from V4.05.23

Fully Compatible with **IEC 60325** and **ANSI 42.17AC** (normal use)

No Tool needed

Ensure the connector's rubber cap does not interfere:

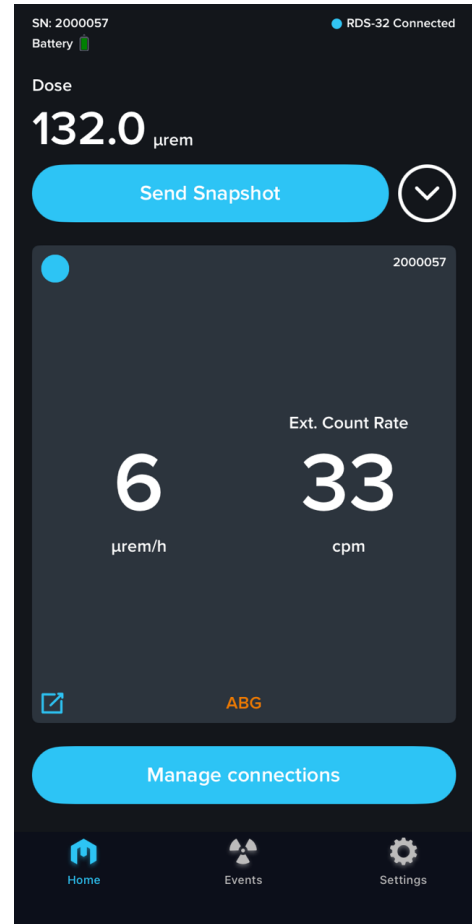


Align GMP-15S with the RDS-32 and slide the meter along the base:



Solution for Hard-To-Reach Areas

RDS-32



The RDS-32 app provides both contamination levels and dose-rate measurements directly on a remote smartphone.



Summary

- *Pancake detector with 15.5 cm² (6.1 in²) detection area*
- *Detected radiations (no discrimination)*
 - ✓ *Alpha > 2.6 MeV*
 - ✓ *Beta > 30 keV – from C-14 to Sr/Y-90*
 - ✓ *Gamma > 5 keV*
- *Activity equivalent: Up to 10 isotopes selection*
- *Protection grid transparency: 79%*
- *Count-rate up to 50,000c/s - 3,000 kCPM*
- *Weight with RDS-32: 470g – 1.04 lb*
- *Battery life with RDS-32 > 400 hours*
- *Protection Ingress: IP42*
- *IEC 60325 and ANSI N42.17AC compliant*
- *Leverage all existing RDS-32 features*

TELE-GMP New Pole For RDS-32 and GMP-12 series



TELE-GMP Features

Released 2025

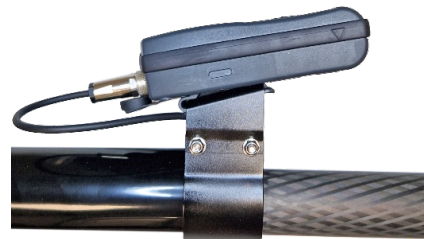
- Detachable detector provides ease of maintenance and calibration
 - Connect probe to RDS-32 via standard cable
- GMP-12 detector locking ring stay on the pole – no need to unscrew entirely to remove probe



- Detector + pole diameter is less than 1.7 inches for quick daily cal-check



- Light weight: thanks to carbon fiber pole
- Easy to carry on shoulder: The strap is positioned to allow comfortable shoulder carrying with minimal risk of probe damage.
- Simplified RDS-32 holder via carrying clip



TELE-GMP Features



- Pole Dimensions
 - Fully retracted pole with probe – 4.2 feet long
 - Fully extended pole with probe – 14.5 feet long
- Pole Weight
 - Pole with RDS-32 and GMP-12GSD – 4.96 lb
- GMP-12 Probe Options Comparison:

	GMP-12GSD	GMP-12SD	GMP-12UW
Detector Type	GM/Silicon PIN diode	Silicon PIN diode	Silicon PIN diode
Dose rate measurement Range	5 μ rem/h to 1000 rem/h	3 mrem/h to 1000 rem/h	3 mrem/h to 1000 rem/h
Energy Response	-20% ... +30% over energy range 60 keV - 3 MeV	-20% ... +30% over energy range 60 keV - 3 MeV	-20% ... +30% over energy range 60 keV - 3 MeV
Enclosure Class	IP67 (short term)	IP67 (short term)	IP68

TELE-GMP Ordering references

- There are two ordering references: TELE-GMP (1233-353) and TELE-GMP/L (1233-354) versions.
- TELE-GMP version includes an add-on molded ring for each pole segment to ensure the user cannot unscrew entirely the locking ring and get all parts loose.



- TELE-GMP/L version does not include an add-on ring. Therefore, users can entirely unscrew each ring and get the pole segment detached



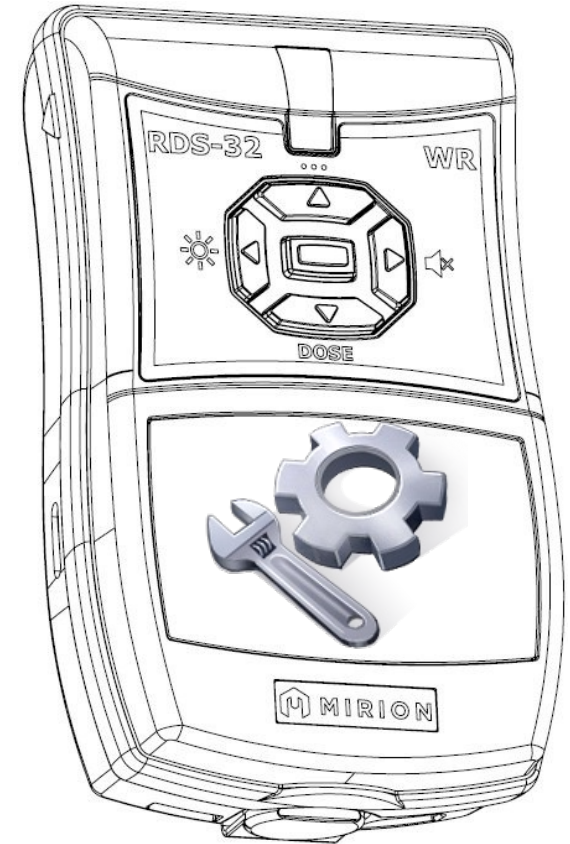
RDS-32 Firmware Update



RDS-32 Firmware*

- *Firmware Release Plan:*
 - 1 – 2 releases per year
 - Depending on user feedback
 - Product range roadmap
- *The latest firmware version is available on the Mirion website*
 - [Mirion RDS-32 Page](#)
- *Developing a registry page to get an email to stay up to date when new firmware is released!*

() Recommended to upgrade to firmware V4.05.25*



RDS-32 App Update



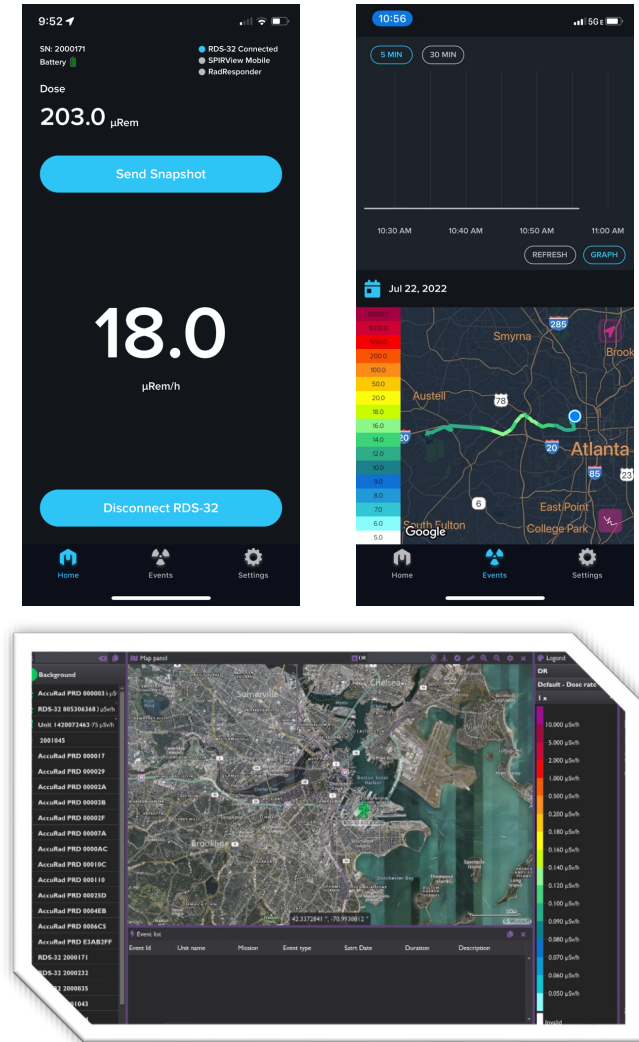
RDS-32 SmartPhone App



Mapping and Reachback

- **Status:**
 - RDS-32 Connected
 - Including its serial number and Battery level
 - Connected to Spirview mobile
 - Connected to Radresponder
- **Radiological display**
 - Current dose
 - Current dose rate
- **Action buttons**
 - Send Snapshot
 - to Radresponder
 - to a Reachback Contact
- **Events screen**
 - Trend graph of the dose-rate
 - Plot of location in a color gradient map
 - Marker for current location
- **APP – Track, Store and Replay**

***RDS-32 firmware version V4.05.20 or later recommended for smartphone app use.**



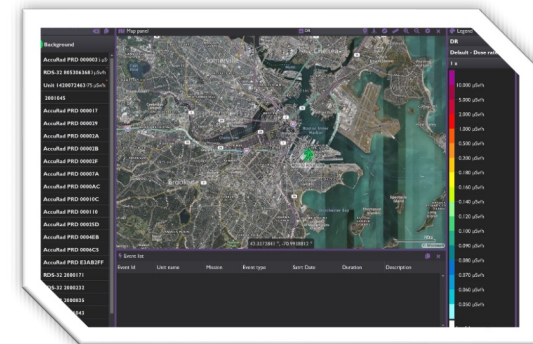
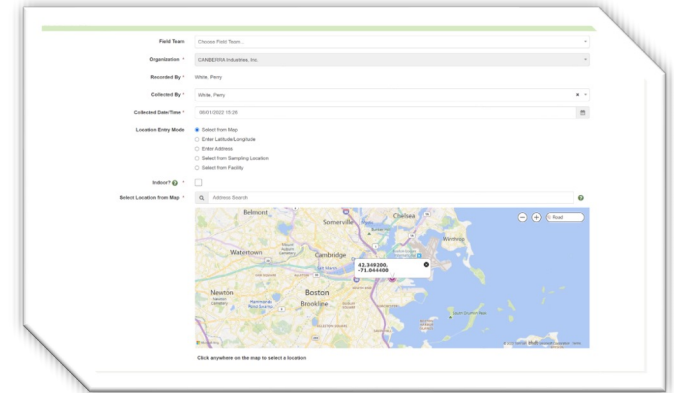


RDS-32 App Update

Coming 2026

- RDS-32 App was initially developed for Rad Responder and SPIRView
- It is easier/quicker to use than a computer
 - Can change setting in the RDS-32
 - Now it is password protected
- So, we added more features
 - Connect up to **5 devices**, including full management
 - Display both Internal dose detector and external probe readings
 - Alpha, Beta, Gamma and Neutron
 - Save your RDS-32 settings and send to other users
 - Standardize all your RDS-32 on site with same settings
 - Save your mission data

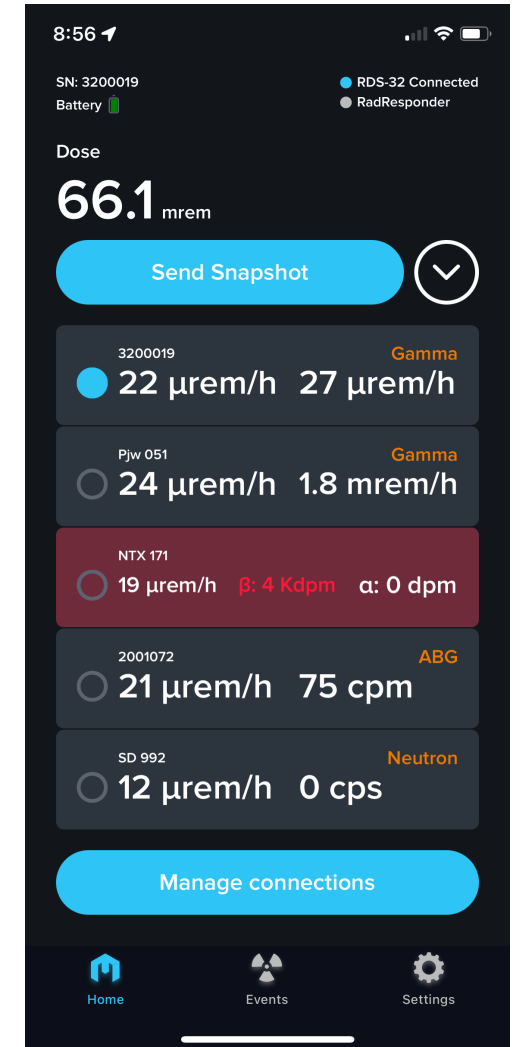
* Projected Release Q3 2026





Multiple Devices Display

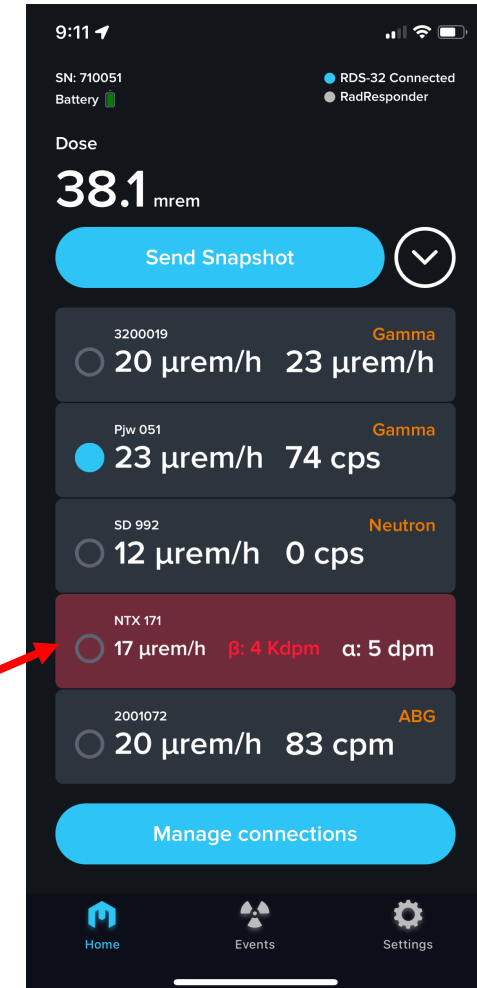
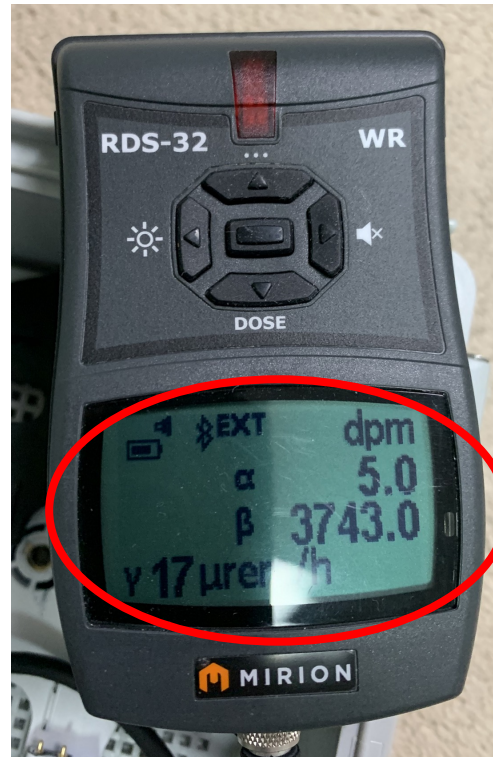
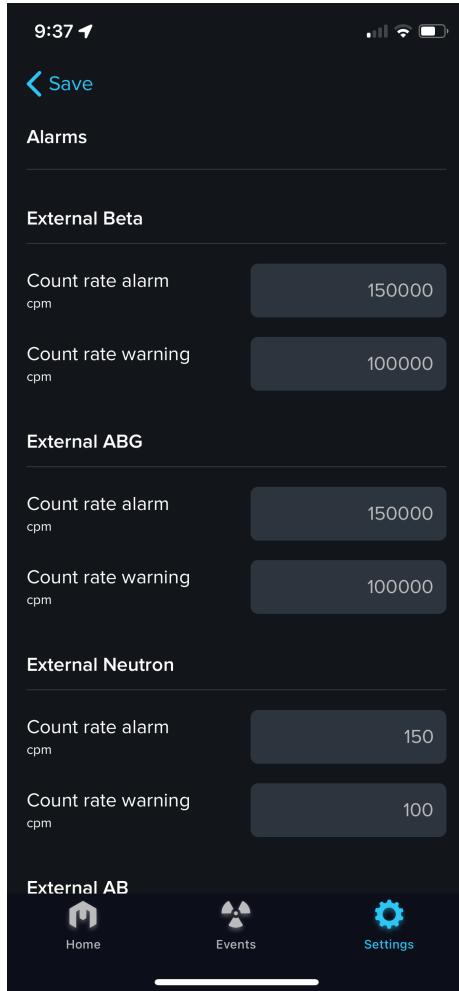
- Each channel displays Internal RDS-32 dose-rate and external probe reading
 - SVLD, GMP-12: Gamma Dose-rate - **Gamma**
 - SAB-100: Beta and Alpha contamination - α β - **Beta in High alarm**
 - GMP-25: Alpha/Beta/Gamma cumulative reading - **ABG**
 - SN-S: Neutron count-rate - **Neutron**



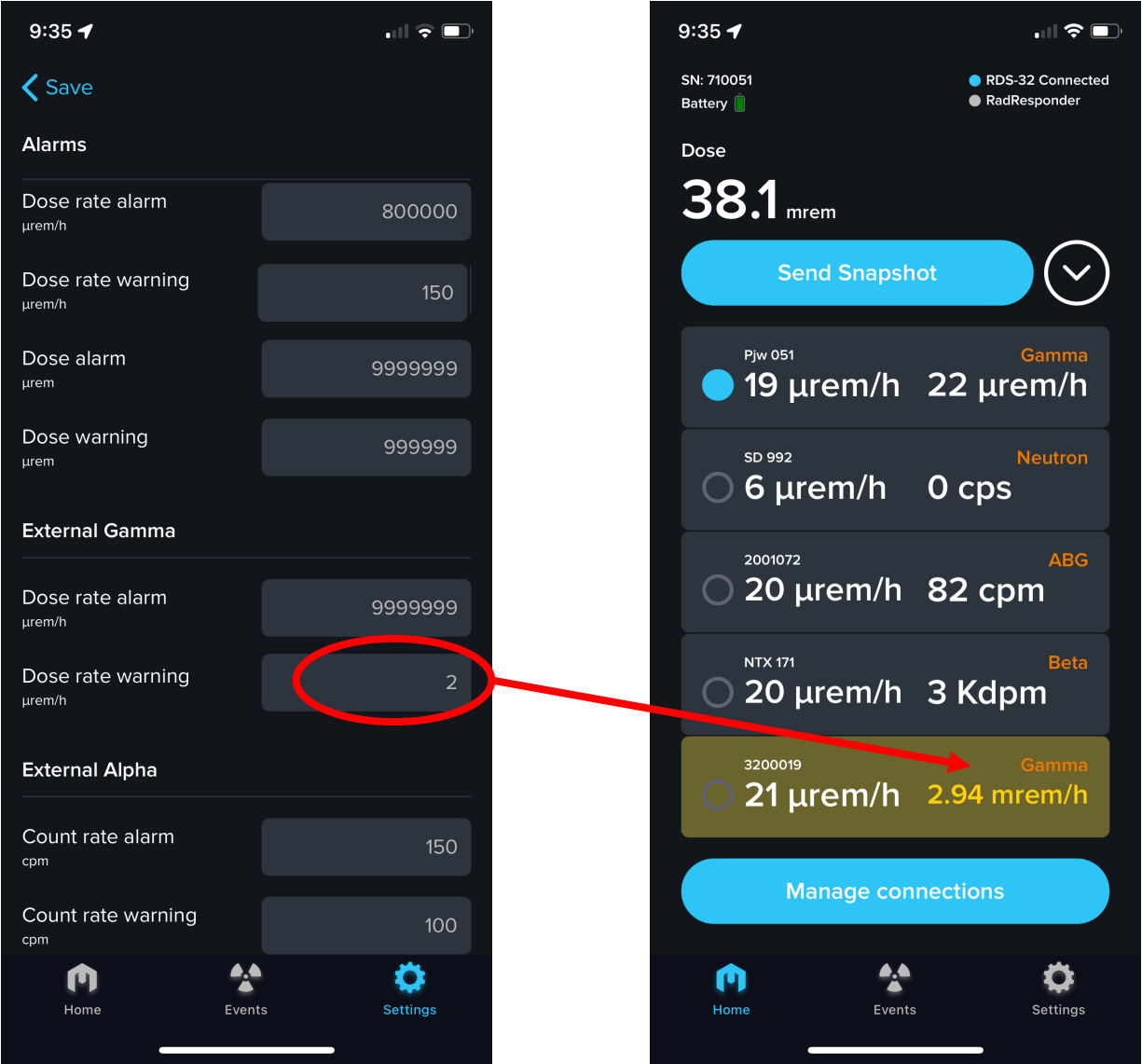
SAB-100 Alarm Example



- The App can have specific local alarm setpoint
 - Different from those in RDS-32
 - **Warning** and **Alarm**



Warning and Alarm



Survey for:

What's New with RDS-32™ Meter, Probes, and CSPevo® Family



*Please take a moment
to fill out a short survey
on this session.*

Thank you

