ORTEC®

# Food Monitoring Solutions

Out-of-the-box solutions for quickly and accurately monitoring food for radiation contamination both in the field and in the lab.

AMETEK®
ADVANCED MEASUREMENT TECHNOLOGY

# ORTEC Food Monitoring Solutions

ORTEC Food Monitoring systems have been designed to work out-of-the-box to address the full spectrum of food monitoring needs from fast screening to advanced analysis and reporting all in an easy-to-use interface.

### FoodGuard-1: Fast, Portable NaI Screening System

The FoodGuard-1 NaI system was designed for quick screening of the most common nuclides expected from events in nuclear power plants ($^{131}$I, $^{103}$Ru, $^{134}$Cs and $^{137}$Cs). The system is battery operated, portable, and low power so it can be used anywhere foodstuffs are gathered, imported, sold or consumed. Audible alarms and a simple drop-down entry interface make this ideal for any operator. Additionally, the system can be purchased precalibrated and installed, so setup onsite takes only a few minutes before making the first measurements.


### FoodGuard-2: Customizable High Resolution HPGe Radiation Analysis System

FoodGuard-2 is a complete out-of-the box solution using High Purity Germanium to give accurate results of radiation activity in food down to <1Bq/L within minutes. The system can be setup to work right out of the box or customized to change nuclides, alarm limits, and nuclide groups to meet different government regulations. The system ships with several preconfigured alarm limits based on published international standards. The system can also be configured with advanced reporting options to create your own customized reports as well as create trend reports across multiple samples.

## Benefits

- Easy to use – no special spectroscopy training required.
- Fast sample loading of common Marinelli containers.
- Clear results and alarms when limits are exceeded.
- Decreased user error.
- Simple setup of different sample types and sample specific limits.
- Detection limits well below government regulations.
- No calibration required.

## Features

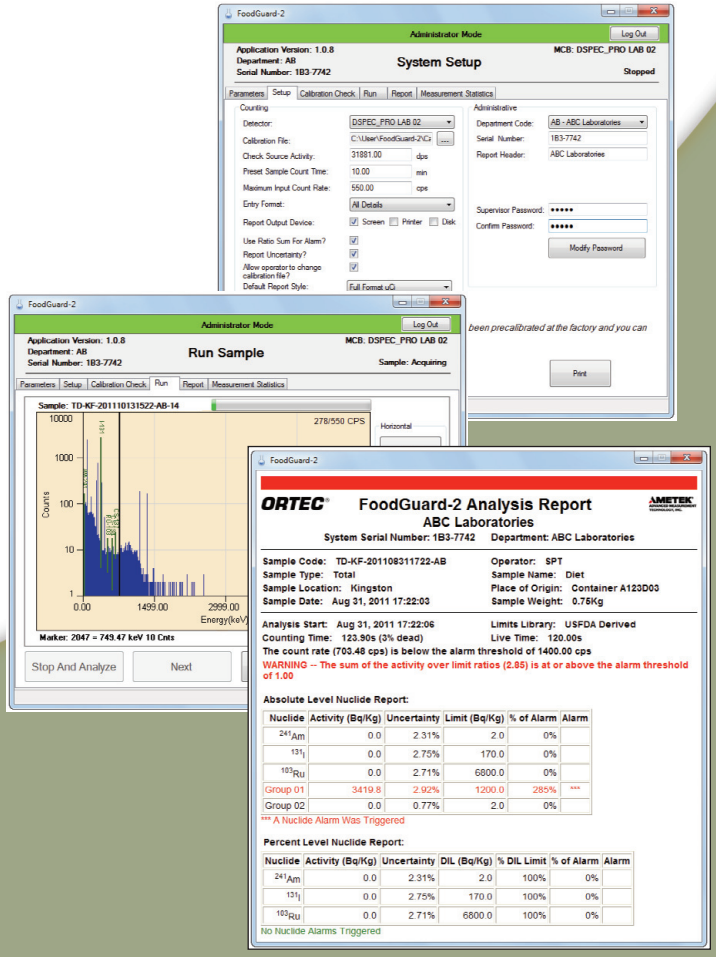
- Detector options:  NaI for screening or wide choice of 40–80% efficiency HPGe detectors.
- Liquid nitrogen and mechanically cooled options.
- Configurable alarm limits based on sample types and nuclide groups.
- Operator and password protected supervisor mode.
- Preinstalled and calibrated systems.
- Audible and visual alarms.
- Includes derived international limit tables.[1]
- Customizable nuclide lists, groups, and reports.*

[1]Available in FoodGuard-2.

## Software

FoodGuard-1 and FoodGuard-2 are based on the same software interface designed to make food monitoring tests as efficient as possible. The software is easily configured by a supervisor to include the different sample types and names that will be tested as well as what types of report outputs are needed. Once configured, an operator simply chooses from a list of drop-down menus and selects Run, limiting the potential for user error during operation.

FoodGuard software continually displays feedback to the operator to show progress and finishes with a clear display of the results including visual and audible alerts for any exceeded limits. The software was designed to be easy to use so the user does not need any specific training or spectroscopy knowledge.



## Ordering Information[2]

**FOODGUARD-1 NaI-based Food Monitoring Systems**

**FOODGUARD-1-PC**

A complete NaI-based food monitoring system including:

- ORTEC 905-4 3" x 3" Integral NaI Detector and Photomultiplier
- ORTEC G5-FOODGUARD-1 Low-background Lead Shield (30 mm thick)
- ORTEC digiBase all-in-one high performance digital electronics, MCA and high voltage supply
- FG-1-B32 FoodGuard-1 food monitoring software (precalibrated)
- 6 each GA-MA 133N-E 1L marinelli beakers with lids
- $^{40}$K (KCL) ring source for stabilization
- ORTEC PC-L-FG standard Laptop
- ORTEC PC-PRT-1 LaserJet Printer

**For use with customer supplied computer order:**

**FOODGUARD-1**

NaI-based food monitoring system including:

- ORTEC 905-4 3 "x 3" Integral NaI Detector and Photomultiplier
- ORTEC G5-FOODGUARD-1 Low-background Lead Shield (30 mm thick)
- ORTEC digiBase all-in-one high performance digital electronics, MCA and high voltage supply
- FG-1-B32 FoodGuard-1 food monitoring software (precalibrated)
- 6 each GA-MA 133N-E 1L marinelli beakers with lids
- $^{40}$K (KCL) ring source for stabilization

**FoodGuard Computer Requirements** PC capable of operating Microsoft® Windows® XP Professional SP3 or Windows 7 and CD-ROM drive (software is supplied on CD). Printer required for hard copy output.

**1L-MARINELLI-CASE**

A full case (33 beakers) of additional GA-MA 133N-E 1L Marinellis with lids.

**FOODGUARD-2 HPGe-based Food Monitoring Systems**

**FOODGD2-PC-20**

Includes GEM20P4-70 detector with 20% relative efficiency and 70 mm endcap, CFG-PV4 cryostat and DWR-30 dewar.

**FOODGD2-PC-40**

Includes GEM40P4-76 detector with 40% relative efficiency and 76 mm endcap, CFG-PV4 cryostat and DWR-30 dewar.

**FOODGD2-PC-60**

Includes GEM60P4-83 detector with 60% relative efficiency and 83 mm endcap, CFG-PV4 cryostat and DWR-30 dewar.

**FOODGD2-PC-XCOOL-115-20**

Includes GEM20P4-70 detector with 20% relative efficiency and 70 mm endcap, and X-COOLER-II 115 V.

**FOODGD2-PC-XCOOL-230-20**

Includes GEM20P4-70 detector with 20% relative efficiency and 70 mm endcap, and X-COOLER-II 230 V.

**FOODGD2-PC-XCOOL-115-40**

Includes GEM40P4-76 detector with 40% relative efficiency and 76 mm endcap, and X-COOLER-II 115 V.

**FOODGD2-PC-XCOOL-230-40**

Includes GEM40P4-76 detector with 40% relative efficiency and 76 mm endcap, and X-COOLER-II 230 V.

**FOODGD2-PC-XCOOL-115-60**

Includes GEM60P4-83 detector with 60% relative efficiency and 83 mm endcap, and X-COOLER-II 115 V.

**FOODGD2-PC-XCOOL-230-60**

Includes GEM60P4-83 detector with 60% relative efficiency and 83 mm endcap, and X-COOLER-II 230 V.

**All FoodGuard-2 Systems also include:**

HPLBS-1 High Performance Low Background Lead Shield.
DSPEC Pro Advanced Digital Gamma Ray Spectrometer.
FoodGuard-2 Food Monitoring software.
Personal Computer and Printer.
6 each 2-liter Marinelli beakers.
$^{40}$K (KCl) check source in 2-liter Marinelli.

[2]Details of all included items available on the ORTEC website.

Specifications subject to change
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