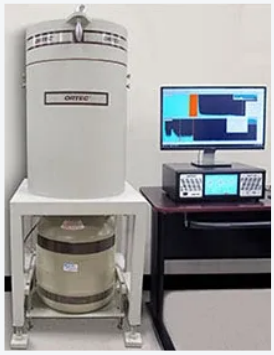
ORTEC

CSS-D-60 Compton Suppression System

Compton-suppressed HPGe system for low-background counting

Complete system for very low-background gamma spectrometry. An NaI guard detector around the HPGe detector records photons scattered out of the germanium crystal, and coincident events are rejected so that the Compton continuum is reduced. This improves the minimum detectable activity, particularly for small samples such as air filters and petri dishes.



Detector type

N-type HPGe (GMX) with carbon-fibre endcap, max. Ø83 mm (3.25 in), and low-background Al cup [1]

Relative efficiency

60% by default; other detector sizes up to 60% as options [1]

Specifications

DETECTOR

Detector type	N-type HPGe (GMX) with carbon-fibre endcap, max. Ø83 mm (3.25 in), and low-background Al cup	[1]
Guard detector	9 × 9 in NaI annulus (3.5 in I.D., 10.75 in O.D., FWHM ≤11% at 662 keV) and 6 × 2 in NaI plug (FWHM ≤7% at 662 keV)	[1]

PERFORMANCE

Relative efficiency	60% by default; other detector sizes up to 60% as options	[1]
Peak-to-Compton ratio	1300:1 or greater (guaranteed, with the default GMX60 detector; averaged background region at 500 keV); smaller GMX detectors give lower values	[1]
Background rate	0.5 cps or lower with rectangular or cylindrical shields	[1]

MECHANICAL

Maximum sample size	3.5 in diameter × 3 in high (up to 750 mL)	[1]

ORDERING & ACCESSORIES

Included software	GammaVision; a computer is typically not included but can be provided on request	[1]

GENERAL

Electronics	DSPEC-502A digital dual MCA (setup under 30 minutes) and 556H power supply for the NaI annulus	[1]
Lead shielding	Cylindrical, 10 cm (4 in) reprocessed lead with inner liner (Tn/Cu); cavity 11 in diameter × 18 in high; optional cosmic veto with plastic scintillator	[1]

Sources

[1] **Compton Suppression Counting Systems**
ORTEC (AMETEK) · product-page · Specifications and Ordering Information – Model CSS-D-60 · checked 2026-10-16
https://web.archive.org/web/20261016000000/https://www.ortec-online.com/products/systems/compton-suppression...

Every value is taken from the manufacturer's own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer's published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.