Silverside moderated sub-systems

SUB-5000 SERIES
For use with He-3 electronics integration

Plug-and-Play

Silverside's core chambers are compatible out-of-the box with standard He-3 electronics. The signal output is comparable to the He-3 spectrum, so no custom amplifiers or other components are required for plug-and-play integration.

Flexible

Each unit is modular and can be custom fit to any portal system. Units can be configured horizontally or vertically to achieve ANSI performance in any system configuration.

Reliable

Deployed since 2015, detectors are operational in a variety of mobile and static systems. Silverside's detectors have a calculated Mean Time Between Failure (MTBF) of greater than 50 years.

Scalable

Designed for low-cost manufacturing, Silverside can scale production for low- or high- volume runs all at competitive price points.

Specifications for SUB-5000 (2 per RPM panel)	
Dimensions (Configurable)	105.7 x 24.5 x 13.6 cm [41.6 x 9.64 x 5.4 in]
Gamma rejection	GARRn = 1.0; $\epsilon_{int} < 10^{-8}$ [1]
Neutron efficiency per RPM panel	**Standard** Chambers: 3 cps/ng Cf-252 @2m [1] **Plus** Chambers: 3.5 cps/ng Cf-252 @2m [1] **Double** Chambers: 4.2 cps/ng Cf-252 @2m [1]
Temperature range	-40 to 60 deg C [2]
Humidity	up to 93% RH [2]
Ingress Protection	IP65, IP67 optional

[1] Testing campaigns with integration and third party test sites
[2] Forsyth, Alison M., Timothy W. Teal, and Andrew Inglis. "Silverside neutron detector performance." Technologies for Homeland Security (HST), 2017 IEEE International Symposium on. IEEE, 2017.