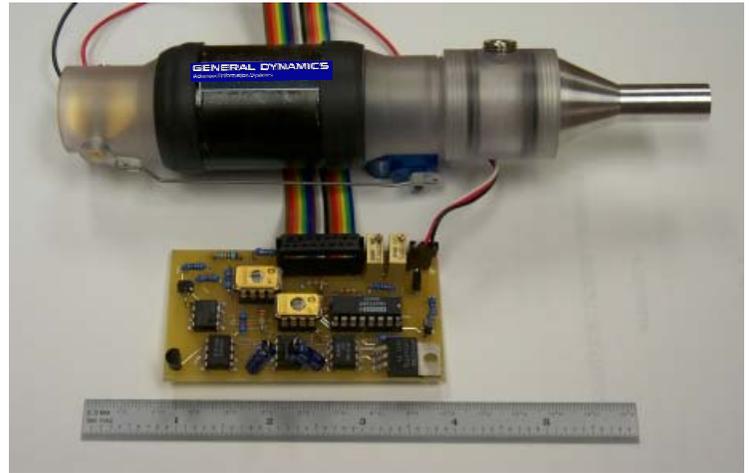


Portable Biosampler

Date Revised: 28 JAN 04

VENDOR DESCRIPTION

General Dynamics has partnered with the Naval Research Laboratories to develop novel collection approaches and integrate COTS collection devices into UAV platforms. In doing so, a lightweight (4 oz), portable device was developed by GD-AIS capable of collecting airborne biological material via impaction on a proprietary bead collection matrix. The sampler has been uniquely designed to provide the correct air velocity to maximize collection efficiency for BWA-sized particles. The collection media has been optimized for maximum collection efficiency with minimum flow resistance, even in dirty environments. The bead media and sample cartridge are designed for ease of sample storage and have been engineered to make post-collection analysis fast and simple. Flow control and real-time air-flow data are controlled on board and in-stream to provide the user with real collection volume data versus less accurate fan speed/collection time data.



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Business Category: Large Business

BAD

Hardware	
Power: 5 watts	Operating Altitude: 0 ft to 30,000 ft AGL
Weight: 0.11 kg or 0.26 lbs	Operating Temp.: 0°C to 40°C
Dimensions: 190mm (l) x 55mm (h) x 40mm (w)	Storage Temp.: -40°C to 80°C
Collection Cartridge (removable): 24mm (d) x 10mm bed depth	Interface: Real-time and cumulative flow via RS-232
On-board storage capacity to handle 100 hours on station for cumulative sample volume	Bandwidth Required: 12 characters/6 seconds @ 19.2 Kbaud
Collector Type: Packed bead media (proprietary)	MTTR: 4000 hrs
Collection is controlled by a servo motor/valve	
Internal Permanent Archive on Information: Yes	

Performance	
Completes 100% of the missions it states without experiencing a mission abort	
Sensor hardened to mitigate damaging effect from EMP: No	
Sensor hardened to eliminate damaging effect from EMP: No	
Collection efficiency of 70% for aerosolized <i>bacillus globigii</i> spores (0.6-1 µm) at a flow-rate of 28 lpm, 100% CE for larger particles.	