

Technical Features	Technology Platform								PASS Advantage
	PNNL PASS	Sonic 1200S	Nusonic CP 20	Panametrics Epoch 4B	Matec Explorer II	LANL Flashlight Probe (Prototype)	USN 52L/R	Dakota VX-7	
Size (inches) / Weight (lb)	10x10x3 5 lb	10x6x2 2.1 lb	Less than 25 lb	12x7x3 5.7 lb	23x18x9 40 lb	Not Avail.	10x6x6 3.1 lb	3x5x2 0.63 lb	Size and shape allow for easy handling.
Ultrasonically Measures Containers in a "Like-Unlike" Mode	YES	NO	NO	NO	NO	YES	NO	NO	Rapidly inspects large numbers of containers with both visual and audible status indicators.
Measures Ultrasonic Velocity and Translates Data to Material Identification (Database)	YES	NO	NO	NO	NO	NO	NO	NO	Software analyzes acoustic velocity data to accurately identify materials (both liquids and solids).
Measures Ultrasonic Attenuation as a discrimination/identification parameter	YES	NO	NO	NO	NO	NO	NO	NO	Provides additional information that enables enhanced identification and discrimination capability.
Real-time Identification and Detection of Materials and Contraband	YES	NO	NO	NO	NO	NO	NO	NO	Results are obtained in 3 to 5 seconds, providing name of material identified or condition of the container
Provides Automatic Temperature Compensation	YES	NO	NO	NO	NO	NO	NO	NO	Can be used outdoors for reliable and accurate field measurements in any environment.
Add Materials to Database	YES	NO	NO	NO	NO	NO	NO	NO	Materials Identification Database can be easily tailored with client-specific materials using VAMS Technology.
Communicates Measurement Results over Internet	YES	NO	NO	NO	NO	NO	NO	NO	System uses a PocketPC with Network or Modem Card to provide direct access to the Internet and other PASS system users.
Windows CE-Based interface	YES	NO	NO	NO	NO	NO	NO	NO	Provides open interface with any other Windows-compatible software.
Ergonomically Designed for Extended Handheld Operation in Field	YES	NO	NO	NO	NO	YES	NO	NO	Designed to be field-operated by inspection personnel for 8-hour shifts.
Determines Condition of container (Hidden compartments, contraband, fill level)	YES	YES	NO	NO	NO	NO	NO	NO	Provides visual/audible indications that indicate the contents or condition of the container.
Normal Operation with No Coupling Gels or Liquids	YES	NO	NO	NO	NO	NO	NO	NO	Uses dry coupling membrane to avoid the use of gels or liquids for coupling.
Rechargeable/Replaceable Battery	YES	YES	NO	YES	NO	YES	YES	YES	Batteries are available at commercial stores and carry a charge of 8-12 hours for long- term field operation.
Stores Data for Later Analysis	YES	NO	NO	NO	YES	NO	NO	NO	Data stored in Windows-compatible file format.
Low Frequency Capability	YES	NO	NO	NO	NO	YES	NO	NO.	Enables examination of large containers and highly attenuating materials
Cost	\$17k	\$10K	\$1.9K	\$15K	\$28.8K	N/A	\$10K	\$1.7K	-----

