

WSMS Integra HT

PRODUCT OVERVIEW

WAFER SURFACE MEASUREMENT SYSTEM



Wafer surface contamination impacts yield and process integrity long before it appears in standard quality checks.

The WSMS Integra HT is designed for reliable, fully automated inline contamination detection at ultratrace levels. It combines automated vapor phase decomposition, liquid handling, and direct ICP-MS measurement in a single, fab-ready platform.

ABOUT THE SYSTEM

ULTRATRACE PRECISION. FULLY AUTOMATED.

Your production is moving faster. Your VPD system should too. WSMS Integra HT delivers double the throughput of standard VPD systems – fully automated, inline, and ready for high-volume production.

The WSMS Integra HT is a fully automated, inline Wafer Surface Measurement System combining Vapour Phase Decomposition (VPD) with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) in a single, fab-ready platform. It detects and quantifies metallic contamination on silicon wafer surfaces at ultra-trace levels – covering 60+ metals with detection limits of 10^5 to 10^8 atoms/cm² and a sensitivity 100x better than TXRF. From HF vapour etching and droplet scanning to automated liquid handling and direct ICP-MS measurement, the entire process runs without manual wafer handling. With its High-Throughput architecture of dual parallel processing modules, the WSMS Integra HT achieves up to 8 wafers per hour – fully integrated via SECS/GEM and OHT into your production environment.



Fully automated VPD process

PadFume, PadScan, PadDry – zero manual wafer handling, zero contamination risk.



High-throughput architecture

Up to 8 wafers per hour via dual parallel processing modules.



Unique wide-bandgap capability

Validated VPD for GaN, SiC, and GaAs – no competitor offers this.



Certified and fab-ready

SEMI S2/S8, CE certified. ISO 6, OHT-ready, SECS/GEM connected.



Modular & scalable platform

From offline WSPS to inline HT variant – protecting your capital investment.



Audit-ready, validated results

Built-in QC standards and LOD checks – traceable, audit-ready data.



TECHNICAL PARAMETERS

SPECIFICATIONS	
Cleanroom class	ISO 6 or better
Temperature	18–24 °C
Relative Humidity	50–60 % (non-condensing)
Measurement Technology	ICP-MS
Wafer size	4", 6", 8", 12"
System dimensions	2,459 x 2,238 x 2,080 mm (L x H x D)
System weight	2,200 kG
Certifications	CE, SEMI S2, S8
Power Requirements	400 V AC, 50 or 60 Hz, 3P N PE, max. 32 A
Utilities	■ Pure Nitrogen Gas N₂ (SMC-Fitting for 3/8" PFA tube, 50 l/min, 4.0 ± 0.2 bar, 99.999 % purity) ■ Compressed Dry Air (Festo-Fitting for 10 mm PUM tube, 5 l/min, 4.8 ± 0.2 bar, oilfree filtered) ■ House Vacuum (Festo connector for 10 mm PUN tube, vacuum < 100 mbar (robot, PAD-Scan) ■ Ultra-Pure Water (SMC-Fitting for 1/2" tube, 2 l/min, 2–3 bar, < 0.055µS/cm conductivity) ■ Fluid Drain, High Concentrated Acid Drain (1" connector for flared tube) ■ Exhaust Modules (Ø 50X60 socket, 150 l/min flow) ■ Exhaust Process (Ø 20X30 socket, 50 l/min flow) ■ Exhaust Safety (Ø 50X60 socket, 100 l/min flow) ■ Exhaust Safety LHM (Ø 60X70 socket, 200 l/min flow) ■ LAN Connection ■ USB Connection





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