

Fiji Generation 2 (G2) Technical Specifications

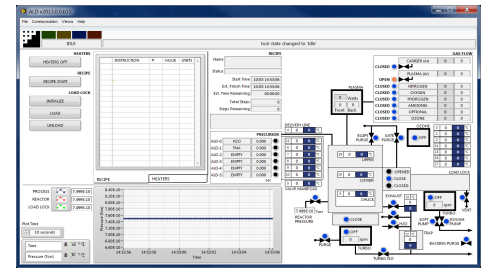
System Specifications	
Operational Modes	Continuous Mode™ (Traditional Thermal ALD)
	Exposure Mode™ (High Aspect Ratio ALD)
	Plasma Mode™ (Plasma-Enhanced ALD)
Substrate Size	Up to 200 mm
Substrate Temperature	500°C 200mm substrate heater standard 800°C 100mm substrate heater optional
Deposition Uniformity	1σ Uniformities
	Thermal Al ₂ O ₃ – 1.5%
	Plasma Al ₂ O ₃ – 1.5%
Precursors	4 precursor lines standard 6 precursor lines optional
	Accommodates gas, liquid, or solid precursors
	Individually heatable to 200°C
	Industry standard high speed ALD valves (10ms minimum pulse time)
	Widely available 50cc (25mL fill max) stainless steel precursor cylinders
	VCR connections
Gases	100sccm Ar precursor carrier gas MFC 200sccm Ar plasma gas MFC 100sccm N ₂ plasma gas MFC 100sccm O ₂ plasma gas MFC 100sccm H ₂ plasma gas MFC
Trap	Integrated, heated, thin foil ALD trap
Optional in situ diagnostics	Spectroscopic Ellipsometer Quartz Crystal Microbalance Mass Spectrometer Optical Emission Spectrometer
Cleanroom Compatibility	Class 100
Compliance	CE, TUV
Dimensions F200:	1600 x 715 x 1920 mm
F200 with load lock:	1845 x 715 x 1920 mm
Power	220-240 VAC, 4200 W per reactor (excludes pump)
Control	Microsoft Windows™ 7 Laptop PC, LabView based system control
Vacuum Pump	>50CFM dry pump required Available or customer supplied



Simply ALD

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Easy to operate but sophisticated design



Easy to use recipe driven Graphical User Interface (GUI) that allows users to run either Thermal or Plasma assisted ALD.

Produces some of the most sophisticated films available

Designed for handling the most demanding films with copper gaskets, turbo assisted plasma and an optional automated load lock.

ALD Films

Ultratech scientists continuously add to the list of standard ALD recipes. Contact us for your specific needs.

Films Deposited on Fiji Systems

Oxides: Al₂O₃, Nb₂O₅, NiO, SiO₂, Ta₂O₅, TiO₂, ZnO, ZrO₂, SrO, LaO, BaO, SnO, InO, ITO, Ga₂O₃, MgO, Mg_xZn_{1-x}O

Nitrides: AlN, Hf₃N₄, SiN_x, TiN, GaN, InN,

Metals: Ni, Pt, Ru

Other: HfSiON, SiON

Doped Films: Al:ZnO, ZnO:N



130 Turner Street
Building 2
Waltham, MA, 02453

TEL 781 907 8900

General Inquiries
ALDinfo@ultratech.com

Support Inquiries
ALDsupport@ultratech.com

Sales Inquiries
ALDsales@ultratech.com