

AccuScribe SS40HT

Wafer Scribing Laser System



Advanced Wafer Scribing Laser System

The AccuScribe family of tool is a field-proven, cost-effective scribing laser system.

The SS40HT provides the best value in its class and can run at a maximum throughput of 3.0 wph. In addition, wafer setup, alignment, and operation is accomplished with a precision X-Y stage and a manual rotational (theta) stage.

The system is ideal for the 24/7 production environment. It accommodates industry-standard blue film expansion frames, performs both full and partial wafer scribing, and features an unique edge detection capability.

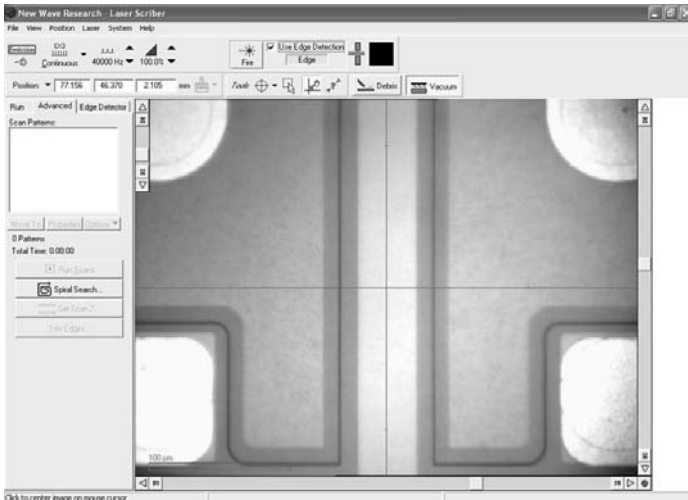
The SS40HT offers a backside alignment option, which allows users to scribe non-transparent wafers utilizing an X-Y stage to ensure consistent laser focus and scribe depth during the scribing operation.

Features

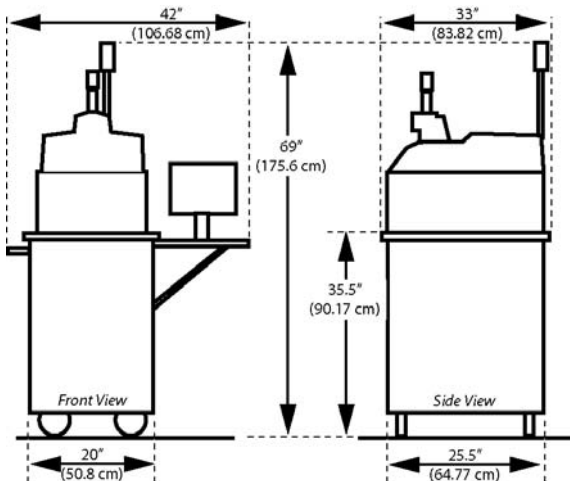
- Cost effective 24/7 production proven laser scribing system
- Proven system by key LED manufacturers
- Enhanced DPSS UV laser for efficient and reliable operation.
- Excellent laser-beam quality to enable sharp, uniform, and consistent scribe lines.
- Reliable and accurate X-Y stage.
- Manual 2" rotational stage
- Real-time display of scribing operation on LCD flat panel display.
- Global support and services via regional offices in the U.S., Europe, Japan, China, Korea and Taiwan.

User-Friendly Software Interface

All AccuScribe systems includes a robust user-friendly software interface. The software allows the operator to easily setup and operate the scribing system. The allows the user to align as well as observe the scribing operation in real-time.



Mechanical Specifications



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System Specification

All specification based on 350um x 350um line spacing on 50mm diameter wafers.

Throughput	Up to 3.0 wph (production worthy)
Scribe time	≤ 19 min
Alignment time	≤ 60 sec
Scribe	
Depth	20 um ± 10%
Kerf width	<4.0 um
X-Y Stage	
Travel	100mm x 100mm
Resolution	1.0 um
Accuracy	± 3 um over 50 mm, orthogonality 3.8um over 100mm, repeatability 2um
Lifetime of laser diode	10,000 hrs
Laser system classification	Class 1

System Dimensions

Chiller	Width = 27.94 cm [11"], Depth = 33.02 cm [13"], Height = 33.02 cm [13"]
System Footprint	107cm x 84cm [42" x 33"]

Site Requirements

Power	100-120 or 200-240 VAC 50/60 Hz
Ambient temperature	20° - 25° C (68° - 77° F)
Wafer vacuum	10-15 inches of Hg
Nitrogen for laser purge	15 psi
Vacuum for debris removal	Flow rate: 10 cfm Vacuum level: 60" of water through a ½" ID tube.
Nitrogen to laser head purge	2 - 5 sccm