CI SEMI
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WetSec201

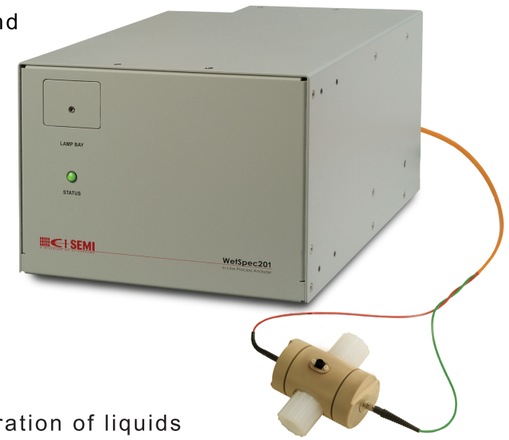
Wet Process Monitoring

For Semiconductor, FPD and Solar cell manufacturing

CI -SEMI 's in- line, wet process analysis system, the WetSpec201, enables non-contact real - time monitoring and closed- loop control of chemical composition in wet process applications. The WetSpec201 is the single-channel version of the well known eight channel monitor, the WetSpec200 and provides a cost-effective, fast and small footprint solution.

A perfect solution for the OEM and end user.

The WetSpec201 is ideal for monitoring of cleaning, stripping and etching and texturing chemistries. Based on CI -SEMI 's proprietary hardware and novel algorithms, the WetSpec201 measures the properties of the solution by measuring the absorption spectrum in the near infrared (NIR) quickly and accurately without labor and material waste. The system's versatile software models enable soft -switch between different chemistries. When integrated into a control and spiking system, the WetSpec201 enables tighter process control and identifies process excursions before they affect yield.



Features & Benefits

- In-line, real-time monitoring of chemical concentration of liquids
- Cost efficient and small footprint
- No need for chemical sampling or dilution
- Short measurement time and low operational costs
- Simple switching between different chemistries
- Analysis of complex (multi-component) chemistries
- Real-time measurement enables closed loop control

WetSec201

Schematic System Configuration

Typical Applications *

Application	Component	Range wt%
SC1	NH4OH	0-1.5
	H2O2	0-3
SC2	HCl	0-4
	H2O2	0-8
DSP	H2SO4	8-13
	H2O2	2-5
HF/HCl	HF	0-20
	HCl	0-1.2
HF	HF	0-20
Hydrofluoric	HF	22-27
Peroxide	H2O2	13-17
Buffered Oxide	HF	1-5
Etch	NH4F	16-24
Nitric/Acetic Acid	HNO3	1-4
	CH3COOH	8-12
ACT 970	H2O	14-19
EKC265	H2O	16-28
ST-250	H2O	34-38
Peroxide in CMP	H2O2	0-5
Slurry	NH4OH	0-5
Ammonium Hydroxide	KOH	0-50
KOH	HF	10-20
HF/HNO3	HNO3	25-35
	HNO3	3-6
Al. Etch	CH3COOH	3-6
	H3PO4	65-75

* Other chemistries/ranges supported per request

Key Specifications

Measurement method	Fiber-optic remote NIR spectroscopy
Calibration method	Chemometrics
Multi-channel ability	Up to eight measurement channels
Time per measurement	Up to 30 sec (Application depended)
Sample conditioning	None required
Temperature compensation	Automatic and continuous
Wetted materials	Process compatible cell body (Teflon/PEEK/SS), sapphire windows, approved seal materials
Communication	RS232 / Analog / Ethernet
Fiber length	Up to 200m
Size	Single 2U 19" rack unit

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