

WetSpec200

Wet Process Monitoring System

CI-SEMI's in-line, multi-channel wet process analysis system, the **WetSpec200**, enables non-contact real-time monitoring and closed-loop control of chemical composition in wet process applications. The WetSpec200 is ideal for monitoring of cleaning, stripping and etching chemistries. Based on CI-SEMI's novel algorithm, the WetSpec200 measures the absorption spectrum in the near infrared (NIR) fast and accurately without labor and material waste. The system's versatile software models enable soft-switch between different chemistries. With the capability to monitor up to eight flow cells in parallel, the WetSpec200 provides an efficient, low cost per channel process monitoring. When integrated into a control system, the WetSpec200 enables tighter process control and identifies process excursions before they affect yield.

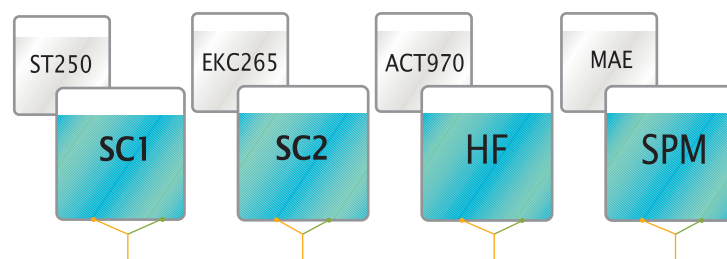


Features & Benefits

- In-line, real-time monitoring of chemical concentration of liquids
- No need for chemical sampling or dilution
- Short measurement time and low operational costs
- One analyzer can monitor several measuring cells with different chemistries
- Analysis of complex (multi-component) chemistries
- Real-time measurement enables closed loop control
- Up to 200 meters distance between analyzer and measuring cell enables placement of the analyzer in a convenient location

WetSpec200

Schematic System Configuration



Typical Applications *

Application	Component	Range wt%
SC1	NH ₄ OH	0-1.5
	H ₂ O ₂	0-3
SC2	HCl	0-4
	H ₂ O ₂	0-8
DSP	H ₂ SO ₄	8-13
	H ₂ O ₂	2-5
HF/HCl	HF	0-20
	HCl	0-1.2
HF	HF	0-20
	H ₂ O ₂	13-17
Buffered Oxide Etch	HF	1-5
	NH ₄ F	16-24
Nitric/Acetic Acid	HNO ₃	1-4
	CH ₃ COOH	8-12
ACT 970	H ₂ O	14-19
EKC265	H ₂ O	16-28
ST-265	H ₂ O	5-20
ST-250	H ₂ O	34-38
Peroxide in CMP Slurry	H ₂ O ₂	0-5
Ammonium Hydroxide	NH ₄ OH	0-5
Citric Acid	Citric Acid	0-1.5

* 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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