

Multi-TAK

PRODUCT DESCRIPTION

THE TRES-ARK MULTI-TAK is a state of the art chemical monitoring system for the semiconductor industry. With the ability to employ both Conductance and Spectral Analysis, the Multi-TAK keeps customers informed of exact chemical concentration in real-time. Tighter tolerances create the requirement for an accurate, fast, in-line monitor that prevents the scapping of wafers and money saved. The Multi-TAK can monitor multiple chemical mixes through one tool saving space and money.

The Multi-TAK has Serial and TCP/IP communication allowing alarms to be connected through dry contact, fab automation, HSMS, and SECS/GEM. The Multi-TAK is interfaced with Tres-Ark control software and a touch screen Graphic User Interface. The GUI provides a complete P&ID of the Multi-TAK flow path allowing the user to see which chemical solutions are being analyzed and what the concentrations are at any given time. A logging feature allows concentrations and recipes to be saved and analyzed using provided calculation functions.

THEORY OF OPERATION

Using highly monitored sampling sequences, the Multi-TAK can pull small samples off of a main chemical line and give instant feedback on concentration. The Chemical mix is then returned un-contaminated back into the main line preventing wasted chemistry and money. The Multi-TAK software allows for automated monitoring, complete with alarm regions that can be relayed either through dry-contacts or fab automation. The Maintenance Mode gives the customer freedom to search for specific tank issues and also allows for long term monitoring of a specific line.

FEATURES

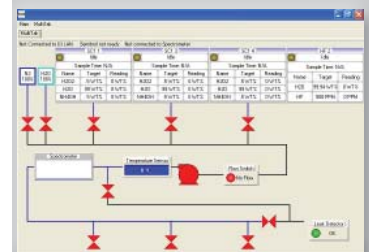
- Spectral and/or Conductance Monitor
- Touch screen GUI with password protected Maintenance Mode
- Built-in Logging Software to back up recipes and chemical data
- Built-in Data Analyzing Software
- Ability to monitor up to 5 different chemical lines containing one chemical mix
- USB
- HSMS, SECS/GEM
- Automatic Sampling & Remote Automation
- **Chemical Mixes:** APM, HPM, HCL, DHF, BHF. Please contact us for others or specialty chemistries
- **Dilution Ranges:** Dependant on chemical solutions and monitor

Tres-Ark | Multi-TAK™



Footprint

depth - 13"
width - 17"
height - 57"



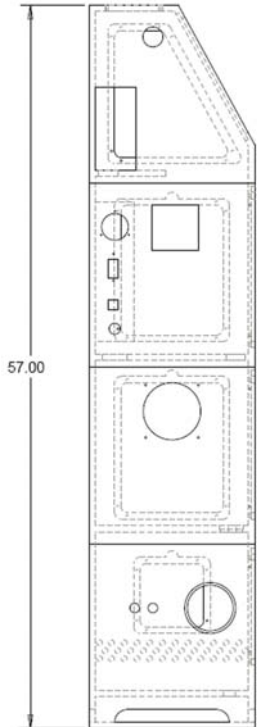
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512.804.0700
fax - 512.804.0900



"bringing new technologies to the marketplace"

FACILITY REQUIREMENTS

- Power - 208 to 240 vac single phase, Full Load Current = 2 amps per module
- CDA - 60 psi 3/8"
- N2 - 15 psi, 1/4"
- Exhaust - 50 scfm: 4" connection



TreLytics Conductance Monitor

TECHNICAL SPECIFICATIONS

TRANSMITTER PERFORMANCE (ELECTRICAL, ANALOG OUTPUT)

Accuracy *	+/- 0.1% of span
Sensitivity *	+/- 0.05% of span
Repeatability *	+/- 0.05% of span
Temperature Drift *	Zero and Span: +/- 0.02% of span per °C
Response Time	1-60 seconds to 90% of value upon step change (with output filter setting of zero)

- * These typical performance specifications are:
1. Based on 25°C with conductivity of 500µS/cm and higher. Consult Tres-Ark for applications in which conductivity is less than 500 µS/cm.
 2. De-rated above 100°C to the maximum displayed temperature of 200°C. Consult Tres-Ark for details.

Awards



1999

Best of Breed Award
for Tres-Ark's value
added engineering
design
- SEMATECH

1999 & 2000

Yield Enhancement
Awards
- SEMATECH

TreLytics

TECHNICAL SPECIFICATIONS

NIR FIBER COUPLED DIFFUSED TRANSMITTANCE/REFLECTANCE SPECTROPHOTOMETER

Principle	Single beam fiber optic coupling, light source stabilizes, diffuses transmittance/references/absorbance, NIR Spectrophotometer with USB PC interface, controlled by personal computer with associated programs installed
Optical System	Crossed Czerny-Turner spectrograph optical layout, high throughput optics with NIR sensitivity enhancement sensor array detection
Light Coupling	Built-in 5W long lifetime Tungsten - typically over 10,000 hours
Detector	TE cooled and temperature stabilized high dynamic range InGaAs array
Wavelength Range	920nm - 1700nm
Computer Interface	USB 1.1/2.0
Integration Time	1-65,535 ms
Power	100 - 240 VAC; 50/60 Hz; 15 VA, battery option available
Temperature	0°C to 45°C

TreLytics Spectral Monitor

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