



VERITEQ

Superior Temperature & Humidity Monitoring

Client: Teledyne Microelectronic Technologies

Category: Monitoring Relative Humidity in Clean Rooms & Electronics Manufacturing

Precision Data Loggers Help Protect Clean Room Integrity

Teledyne Microelectronic Technologies (TMT) designs and manufactures complex electronic and communications products for space, defense and industrial applications. The company's customers include major communications and commercial companies, government agencies, aerospace prime contractors and general aviation companies. Since 2003, TMT has used Veriteq's precision data loggers to provide humidity and temperature monitoring in its clean rooms.

The Problem

Like many high-level electronics manufacturing companies, TMT maintain clean rooms – work areas where air quality, temperature and humidity are highly regulated to protect sensitive equipment and products from contamination.

Electrostatic discharge is a key concern in the manufacturing of electronics and microelectronics. Since TMT products are used in applications where performance, precision and reliability are critical, the company monitors humidity meticulously. TMT also maintains detailed records to show customers that products have been safely manufactured. And if there's ever a problem with a product, the company must be able to track the complete history of the device, including its manufacturing environment.

In the past, TMT used chart recorders to monitor and record relative humidity in clean room facilities. However, says Mark Kashef, TMT Metrology Lab Manager, chart recorders are highly labor intensive. "Someone has to physically check the recorder and write down the results three times a day, and since chart recorders don't provide an alarm system, we had to rely on staff members checking the recorders constantly. It is a very inefficient system." He also says that chart recorders are expensive to purchase and maintain.

The Veriteq Solution

"When we found Veriteq data loggers," says Mark, "we switched right away. And we noticed a big difference. Data loggers are much easier to use, and more efficient than someone monitoring chart recorders three times daily."

Teledyne Microelectronic Technologies: Monitoring Relative Humidity

TMT has installed more than 40 precision data loggers in four buildings. "We needed to monitor the humidity in our clean rooms at all times," Mark says. "I like the fact that the system emails me with an alarm if there's a problem, and several of our staff members use the system's pager and cell phone text message alarm functions."

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SUCCESS STORY

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Mark has programmed all 40 Veriteq data loggers to download automatic transfer data to a folder in the common drive monthly. "Usually, we just use the data that downloads to our computers – it's great to have it all in one place." Mark went on to highlight the major advantage of the Veriteq data loggers. "But we also like knowing that if we have a problem with a computer or server, information from the last few months is stored on the loggers themselves."

Along with increasing efficiency and saving time, Mark says that Veriteq's data loggers have saved the company money as well. Data loggers cost less than chart recorders, he says, and TMT no longer faces the ongoing costs of chart papers, pens and expensive maintenance. Veriteq precision data loggers offer a number of other benefits over chart recorders, including:

Accuracy – Based on electronic microprocessors and sensors, not moving parts, Veriteq's data loggers offer greater accuracy and precision than paper chart recorders.

Reliability - If paper charts aren't replaced regularly, information collected by the chart recorder becomes invalid. On the other hand, if a data logger download is missed, the logger can retain months of data. Veriteq's data loggers run on 10-year batteries, so they're immune to power outages. While paper charts fade over time and can become lost in filing, data logger files can be backed up electronically.

Functionality – Chart recorder data can be time-consuming to analyze. Veriteq's precision data loggers enable users to easily and effortlessly print graphs and reports, calculate minimum, maximum and average values and export to Excel.

Maintenance – Chart recorders require extensive cleaning, calibration, repairs and regular replacement of charts and pens. Data loggers only need to be calibrated once a year and they're highly accurate, even when moved frequently.

TMT customers appreciate the added reliability and efficiency of Veriteq's data loggers. Mark declared, "When we take customers on facility tours, the data logger system is one of our must-show items."

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For more information about Teledyne Microelectronic Technologies, please visit www.teledynemicrotech.com or call (800)518-1015. To learn more about Veriteq precision data loggers, see www.veriteq.com or call (800) 683-8374.

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