CHRIS DEMARTINO | Technology Editor

Probing Systems Run on Their Own

This company recently introduced its new probing systems, as well as an autonomous RF measurement solution that can perform calibrations and measure RF devices without user intervention.

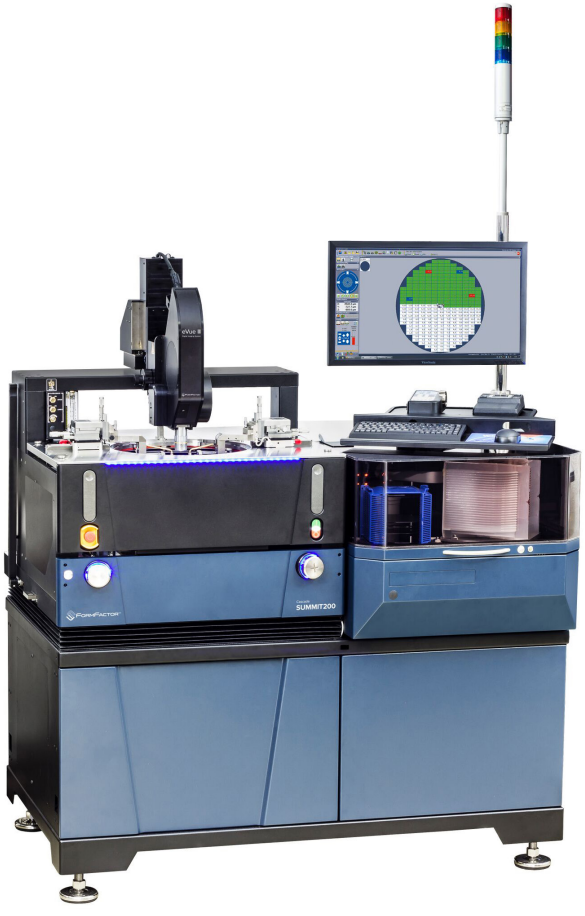
Probe systems are a specialty of FormFactor (www.formfactor.com), which demonstrated its latest advances at the recent IMS 2018. At the show, FormFactor highlighted a new line of 200-mm probing systems, dubbed SUMMIT200 (Fig. 1). The company also announced a new autonomous RF measurement capability that's intended to help meet faster time-to-market requirements of integrated circuits (ICs) for markets like 5G communications, autonomous vehicles, and next-generation Wi-Fi.

Jens Klattenhoff, senior director for systems marketing at FormFactor, attended IMS and spoke about the SUMMIT200 and more. "The SUMMIT200 is an engineering platform for high-end engineering, as well as niche production and high-volume engineering. We have added a loader to our SUMMIT200 platform, so it allows for faster time-to-data. You can put in two different cassettes, and it can be fully handled automatically. We have reworked our whole Summit platform, so it has high temperature stability and overall better performance."

Klattenhoff also mentioned the benefits in speed provided by the SUMMIT200, noting that it's five times faster than the current Summit system.

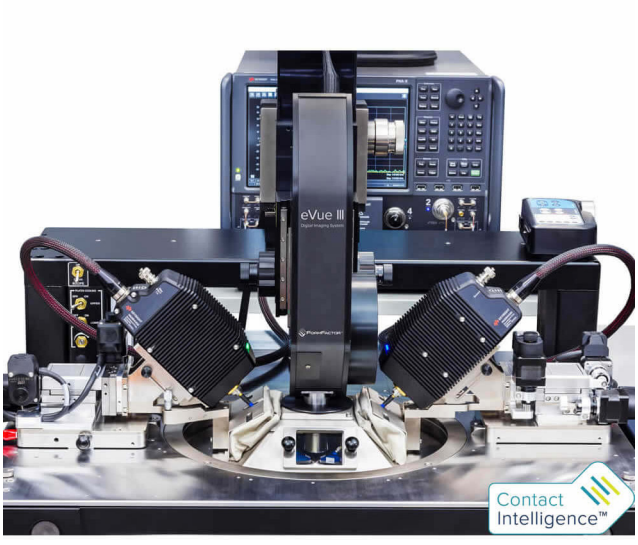
In addition, the SUMMIT200 platform supports FormFactor's Contact Intelligence technology, which leads to its major announcement at IMS. The company revealed that it has extended its Contact Intelligence technology to enable autonomous RF measurements. The autonomous RF measurement solution combines a probe system, advanced programmable positioners, and the WinCal XE and Velox software tools *(Fig. 2)*. Both the SUMMIT200 and CM300xi probe systems support the Contact Intelligence solution.

FormFactor asserts that the Contact Intelligence solution allows customers to take advantage of "fully autonomous, hands-free calibrations and measurements of RF devices over multiple temperatures." An operator can begin a test and then let the system run on its own overnight or even over a weekend—no user intervention is required. The system will automatically realign the probes with the pads if they drift away from alignment.



1. With the SUMMIT200 probing solutions, measurements can be performed manually, semi-automatically, or fully automatically.

In addition, calibration is continuously monitored. If the



2. This autonomous RF measurement solution can perform autonomous calibrations and measurements of RF devices over multiple temperatures.

calibration drift exceeds a predefined limit, the system will automatically perform a recalibration.

"With our brand new autonomous RF measurement system, the whole system will perform the measurement, recalibration, and wafer handling," noted Klattenhoff. "This gives you the freedom to concentrate elsewhere, as the machine will do the work for the whole shift. It will recalibrate over different temperatures from −40 to +125°C. Automatic positioners guarantee best contact at all times."