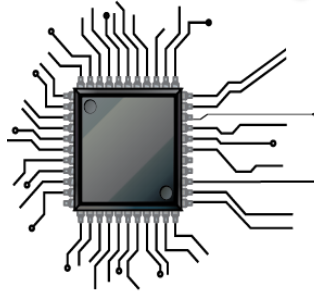


Welcome !

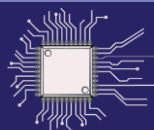


MivaCon

2021



Roadmap Segment begins at 2:00 pm Eastern US Time



MivaCon

2021

“Every man builds his world in his own image. He has the power to choose, but no power to escape the necessity of choice.”



DART Desktop: Factory Floor Tools

- **Expected Release: October 2021**
- **Tools to measure offline**
 - DART Coupon measure for linewidth after develop and etch.
 - AB Registration confirmation
- **Results:**
 - Manual approach to adjust digital linewidth compensation or calibrate AB registration.



Unsung Industry

■ Coming Industry Issues

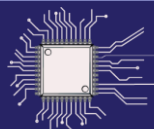
■ Convergence

- PCB and Microelectronics are converging
- Expectations on the PCB provider are ever more challenging

■ Feature Size pressure will increase to sub-1mil

■ Beyond Scale

- Circuit densities coupled with material sets will cause scaling to become obsolete.
- Scaling cannot solve the equation for random movement.
- New manufacturing methods such as laser drill and back-drill use different references resulting in differing scale approaches.





Optimization Suite : Live Process Control

- **Expected Release: 2022 IPC Expo**
- **Direct Feed Back Loop**
 - Instrumentation for develop-etch to measure upon panel exit for constant feedback
 - AB Registration live measure
- **Feedback Loop:**
 - AI Controls to provide predictive digital feature adjustments for process variation



BeyondScale: *Real* Digital Imaging

- **Release Date: 2022 IPC Expo**
- **Every Point Measurement:**
 - Miva Prescan: will measure every point not just targets.
 - Scan Technology developed by Miva to measure thousands of points simultaneously.
- **Result:**
 - BeyondScale : Points are moved to actual locations within the Gerber level
 - AI Tools resulting from CHiPS development effort to power the DART rasterization