



Integrated Measurement Association

Since 1998

IMA Meeting at 6th European AEC/APC Conference

Prepared By

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Sponsored by NanoPhotonics

IMA Survey

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Integrated Measurement Survey

- Purpose of the IMA Survey:
 - Better understand emerging integrated measurement requirements
 - Insight into market needs and timing as used with AEC/APC
- Targets for Survey:
 - Device Manufacturer
 - Substrate Supplier
 - Process Equipment OEM's
- Beneficiaries of Survey
 - IMA Members
 - Suppliers of IM Technology
 - Users of IM Technology – gain insight to others IM needs and timing
- Who gets the Survey Results?
 - IMA members & survey respondents – entire survey results
 - IMA meeting attendees - this presentation only & posted on IMA web



Survey Statistics

- 38 Survey Respondents since AEC/APC Colorado Sept. 04
 - 17 Device Mfg.
 - 13 Process Equip. OEM's
 - 1 Substrate Supplier
 - 7 Other...APC, Metrology, University, Sensor, Consultant, CSUB, SW
- 29 Different Companies
- 30 respondents gave personal contact information
- 84% need both FDC & APC
 - 11% R2R only
 - 5% FDC only
- 73% do NOT expect the IM supplier to provide the APC/FDC Technologies
 - The 27% that do have interesting comments & expectations
- 86% say the need is now or within 1 year
- 58% want more information about the IMA



Survey Results

Most Critical Process		
Process	#	%
CMP	5	13%
Deposition	4	11%
Etch	12	31%
Ion Implant	1	3%
Photo	12	31%
Other	4	11%

IM Best Fit Technology	
IM	#
Ellipsometry	11
Reflectometry	11
Scatterometry	16
Sensor	12
Other	3

Sensor & Other had very interesting ideas and needs
But is reserved for IMA members

How Critical is this Need?		
Must Have	24	63%
Probably will need	14	37%
What is the Timing of this Need?		
Now	15	39%
6 Months	3	8%
1 Year	15	39%
2 Years	4	11%
3+ Years	1	3%
Production or R&D?		
Production	31	82%
R&D	7	18%

Technology Node		
<65 nm	5	14%
65 nm	9	25%
80 nm	1	3%
90 nm	9	25%
100 nm	1	3%
>120 nm	3	8%
Other	8	22%
Type of Device		
ASIC	9	
Memory	18	
Microprocessor	20	
Other	10	



IMA Members Survey Access

- The entire Tallied Survey Results
- Specific comments, from the respondents - sensor types, measurement requirements, applications – matched with individuals & companies
- Contact information – company, site, names, title, phone, e-mail, address



What Will The IMA Do With These Results?

- Provide the Survey results to the IMA members
 - Publish on the IMA Web site members section
 - Review for future IMA direction
- Follow up with the respondents that want to know more about the IMA
- Send the Survey results to the survey respondents that are Chip Makers, Substrate Suppliers, or OEM's
- We encourage you to take the survey if you fall into one of the above categories:
 - By hard copy provided at this meeting, or
 - On-Line at:

<http://intercom.virginia.edu/SurveySuite/Surveys/IMA04>



Thank You!

**Any and all comments
are welcome**

Many thanks to *NanoPhotonics* for its sponsorship of this survey, and to the respondents for their valuable input

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