



JOINT STANDARDIZATION BOARD (JSB) for DEFENSE MICROELECTRONICS and SEMICONDUCTORS

David E. Moore

Defense Supply Center, Columbus (DSCC)

Chief, Document Standardization Unit

Defense Standardization Program Conference

23-25 May 2006



Background



- JSB on Microelectronics and Semiconductors evolved from the Defense Microcircuit Planning Group (DMPG)
- DMPG existed for approximately 20 years and focused on the rapidly changing microelectronics area
- DMPG chaired by DSPO



Background



- Members included:
 - DSPO
 - DSCC
 - Air Force 11 and 19
 - NASA
 - Army CR and MI
 - Navy EC
 - DMEA
 - GIDEP
 - JEDEC JC-13 members
 - G-12 members



Background



- DMPG key issues included:
 - Standard Microcircuit Drawings (SMDs)
 - Move from MIL-M-38510 to MIL-I-38535 and MIL-H-38534
 - Transition from QPL to QML
 - Off Shore Issues
 - Acquisition Reform
 - MIL-I-38535 to MIL-PRF-38535
 - MIL-H-38534 to MIL-PRF-38534



JSB Concept



- DSPO identifies key areas for application of the JSB concept
- DMPG an ideal candidate to become a JSB
- Expanded scope to include semiconductors as well as microelectronics



Kick Off Meeting



- Held 20 September 2005 as part of the JEDEC/G-12 conference in Columbus OH
- Discussed draft charter, DoD charter members, chairmanship, and industry participation
- Next meeting scheduled for 27 June 2006



JSB CHARTER MEMBERS



- DSPO
- DSCC
- Air Force (AF-11, AF-19)
- Army (Army-CR, Army-MI)
- Navy (CRANE)
- NASA
- DMEA
- NRO
- NSS



JSB Industry Partners



- Chairman JEDEC JC-13 Committee
 - Representing microelectronic and semiconductor manufacturers
- Chairman EIA G-12 Committee
 - Representing microelectronic and semiconductor users
- Other guests pertaining to specific topics



JSB Purpose



- Forum to discuss issues that have a major impact on defense microelectronic and semiconductor standardization
- Forum to discuss with the services, DSCC, NASA, and industry the goals and future program direction
- Forum to discuss standardization documents and their impact on standardization and interoperability



JSB Purpose



- Facilitate funding for specific projects
- Interface for commercial/military component integration
- Promote standardization of microelectronics and semiconductors



JSB Specific Areas of Focus



- Lead Free Solders (LFSs)
- Specialty metals
- Reliability prediction models for electronic components
- Space specific microelectronics and semiconductor standardization issues



JSB Specific Areas of Focus



- Aerospace Qualified Electronic Components (AQEC)
- Moisture resistance testing and lab correlation
- Parts Management
- Parts derating standards



JSB Specific Areas of Focus



- Monolithic microcircuit standardization issues (MIL-PRF-38535)
- Hybrid microcircuit standardization issues (MIL-PRF-38534)
- Semiconductor standardization issues (MIL-PRF-19500)
- Qualification issues (QML)



Summary



- JSB on Defense Microelectronics and Semiconductors is viable
- Key DoD organizations and industry players are interested in participating
- Chairman will be Mr. Saunders, DSPO
- June 27, 2006 is the next meeting