An Introduction to
System Management Interface Forum
&
the PMBus® Consortium

October 2017
System Management Interface Forum

- A non-profit, Special Interest Group as defined by the IRS tax code
- Allows competing companies to collaborate (legally) without fear of retribution under federal restraint-of-trade laws
- Member companies pay nominal annual dues to support initiatives
- Managed by a Board of Directors elected from representatives of the member companies
SMIF Mission Statement

Support the advancement of a technology base which promotes Power Management and System Technologies implementations.
What is PMBus?

Power Management Bus (PMBus) is a standardized protocol leveraging the SMBus physical layer for communicating with power conversion systems:

- Configure
- Control
- Monitor

Typical Simplified Server Block Diagram with PMBus™ support
PMBus Consortium

• A continuously changing group of representatives from the member companies who contribute to the development and advancement of PMBus

• **Mission Statement:** To promote the worldwide smart management of power through universal standards to the financial benefit of the member companies

• **Target Audience**
  • FPGA, ASIC, SoC, Core processor manufacturers
  • OEM systems architects & designers
  • Power Supply Manufacturers
  • Power management solution providers
PMBus Working Group Activities

- Various committees composed of member company representatives with domain expertise in the areas of development

- Standing Committees
  - Specifications Development
  - Features Definitions
  - Application Notes
  - AVSBus™ Users
  - Promotion & Marketing
Activity Roadmap

- **Phy**
  - 2008: SMBus 2.0
  - 2010: PMBus <400kHz
  - 2012: 5V TTL
  - 2014: 127
  - 2016: 256
  - 2018: 256+AVS
  - 2020: PMBus 2.0?

- **Bus Speed**
  - 2008: PMBus <400kHz
  - 2010: PMBus <1MHz
  - 2012: 1.8V-5V CMOS
  - 2014: ???
  - 2016: ???
  - 2018: ???
  - 2020: ???

- **Levels**
  - 2008: 5V TTL
  - 2010: 1.8V-5V CMOS
  - 2012: 127
  - 2014: ???
  - 2016: ???
  - 2018: ???
  - 2020: ???

- **# Addr**
  - 2008: 256
  - 2010: 256+AVS
  - 2012: ???
  - 2014: ???
  - 2016: ???
  - 2018: ???
  - 2020: ???

- **# Cmd**
  - 2008: 127
  - 2010: ???
  - 2012: ???
  - 2014: ???
  - 2016: ???
  - 2018: ???
  - 2020: ???

- **Protocol Scaling**
  - Released
  - In Definition
  - In Development
  - In Discovery
  - Rack
  - Cabinet
  - Data Center

October 15, 2017
40 Members and growing ...
# Two Membership Levels

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<tr>
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<th>Full member</th>
<th>Tools member *</th>
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<tr>
<td>Annual dues</td>
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<td>License for logo and name</td>
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<td>Product listing on web</td>
<td>In product section</td>
<td>In tools section</td>
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<td>Access to pre-release documents</td>
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<td>Participation in working groups</td>
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<td>Participation in PMBus hosted events</td>
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<tr>
<td>New product announcements in newsletter</td>
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* **Eligibility for tools membership**

Tools membership is intended for companies that specialize in providing software or hardware tools for development and testing, including development and testing of SMIF protocols (like PMBus, SMBus, SBS) and similar, related, or combined protocols (like I2C and IPMI).

A company that manufactures OEM or end-user products for production, not just for development and testing, is not eligible for tools membership, even if that company also provides tools.

Tools membership eligibility is determined by the SMIF board of directors, whose decision is final.
Your membership and active participation is encouraged to contribute to the continued adoption & success of PMBus®.