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Introduction

SMIF's mission is to enhance interoperability and not to define specific products—that role is left to the purview of our member companies. We do collaborate within and externally to provide common support frameworks. An example are the Application Profiles.

Application Profiles define commonly used sub-sets of PMBus commands that are appropriate for solutions in particular applications, such as our existing profiles for AC/DC Server Power Supplies and Hot-Swap Controllers. These standardized sub-sets of commands allow an OEM to write a single piece of software that can be used with multiple vendors' products.

We are working on an **Application Profile for DC-DC Point of Load Converters**. The *draft* specification was composed by the PMBus Working Group, and on February 13 the proposal was sent for review to all members on our contact list. All responses and inputs were processed and the final specification will be released in March and posted under the [Specifications](#) section of the website. The new DC-DC POL profile

will be high-lighted during the APEC Industry Session (IS04).

The Working Group would like to thank all the member representatives who responded! Your continued participation and input will make it possible to continue to add support tools and specifications in the future. *Please provide your feedback or suggestions regarding the process to admin@smiforum.org.*

Membership Updates

Our 'Full Membership' count held steady at 40 companies. If your company has not remitted dues payment for the 2017 year (and there are still a few of you out there), then please do so immediately. Notification invoices for payment were sent early last November; as it has been 4 months now, the PMBus website company listing and login privileges have been revoked for any members who are in arrears.

Since introducing the new Tools Membership category, we are in discussions with several tool development companies who will soon be supporting PMBus. We expect to add Tools Members to our ranks during the coming months. For those of you who are working with 3rd parties to develop support tools, please encourage them to investigate the advantages of becoming a PMBus Tools Member. And, thanks to those of you who have already made referrals--- you know who you are!

Companies with an interest in joining PMBus have two ways to get more information. They can download the [PMBus](#)

[Organization Overview](#) presentation for a detailed description and benefits of the System Management Interface Forum; or, send an email to admin@smiforum.org to get immediate answers to specific questions.

New Product Announcements

Murata Power Solutions has introduced the 62W OKDx-T/90 series PMBus compliant point of load (PoL) dc-dc converters for FPGA and processor power applications. The module is specified to operate over a V_{in} range of 7.5 V to 14 V and provides a user-adjustable V_{out} in the range of 0.6 V to 1.8 Vdc with a typical efficiency of 94% with 12 V in, 1.8 V out at 50 % load. Package options include SIP, horizontal through-hole and SMT configurations.

TDK-Lambda announced the 100A iJC series of PoL (Point of Load) non-isolated dc-dc converters. Operating from an 8-14 Vdc input, the iJC series can provide output voltages from 0.6 to 1.5V, with a precision set point accuracy of 0.5%. The PMBus compliant iJC series converters feature auto-tuning digital control for better dynamic performance, improved system stability and flexibility.

If your company has new products that you would like to be included in our next newsletter, just send an email with the subject line “new product(s)” and the details to admin@smiforum.org. Then watch this space for updates.

Website Updates

Since our last newsletter, members have made 62 additional postings to their PMBus-compliant *Product* pages. A total of 287 items were listed at the end of February. Now 22 companies, more than half of our members, have products displayed on the website.

Finally, don't forget to utilize the “Featured Product” to include graphics on your company's dedicated *Product* page. Click here to see an example on the [TDK-Lambda](#) product page. All members are encouraged to contact us if you would like to add or change a Featured Product listing. Please send your requests to admin@smiforum.org.

Promotional Activities

During APEC 2017 we will continue the tradition of giving away a special PMBus branded tchotchke. Through the years these



items have become prized collectables. This year's suede leather engraved coaster may be the most functional item yet! Just stop by the PMBus booth (#1832) and request one to add to your collection.

Upcoming Events

APEC 2017. PMBus is a Silver Level Sponsor at the upcoming March 26-30 exhibition in Tampa, Florida. Visit us at Booth# 1832 to see system demonstrations of PMBus enabled products. Intel will demonstrate telemetry collection on a rack-mounted server. Artesyn will be remotely controlling their 12KW modular ac-dc power supply. Ericsson will be showing the monitoring of telecommunications equipment. Rohde & Schwarz will be using their PMBus-compatible portable oscilloscope.

Attend **Industry Session IS04** on Tuesday, March 28 from 8:30-11:55am for a crash course in PMBus implementation. The 7 technical presentations cover examples for programming configuration, monitoring and optimization in single and multi-master systems. Click [here](#) for more details of the topics and presenters.

FAQ

The newsletter's *Frequently Asked Question* section includes a selected question which has been received along with the detailed answer.

Question: *How can a master device quickly determine how many slave devices are on the bus and their addresses?*

Answer: The standard way is for a master to poll each address in the system and terminate the transaction with a STOP condition after the ACK/NACK response. If an ACK follows the R/W# bit, then the master knows that there is a device at that

address. If there is no acknowledge (a NACK) after the R/W# bit, then the master knows there is no device at the address.

A faster way is for the system to use ZONE capable devices. The master can then use a ZONE READ operation to get a response from all the attached devices. This results in a transaction that is only as long as the number of devices on the bus rather than the 127 transactions needed to poll every address. The procedure for discovering all of the devices in a system using the ZONE READ operation is described in detail in PMBus Application Note AN001, Using The ZONE_READ And ZONE_WRITE Protocols, which can be found in the Application Profiles & Notes section under the Specifications tab on the PMBus website www.PMBus.org.

Have a question about the PMBus or SMBus specifications? The System Management Forum provides free support. Send your question to techquestions@smiforum.org and a PMBus or SMBus consultant will respond.

Other Items

The PMBus logo is a registered trademark of SMIF. PMBus adopters who are SMIF members in good standing are allowed free, unlimited commercial use of the PMBus name and logo. Proper usage of the name and logo is important in order to retain our rights. Please encourage your company's marketing communications department to collaborate with SMIF whenever there are publications or questions.



Quarterly Newsletter

Winter 2017

Please remember to use the TM symbol when referencing PMBus and AVSBus in data sheets, press releases or other written material. It does not have to be done for every occurrence, but should be included in any title or blurb and with the first usage in the main text for articles. The logo graphics for web postings and hi-res print can be downloaded from the [resources](#) section of the PMBus website.

Contacts:

Membership inquires: admin@smiforum.org

Tech help: techquestions@smiforum.org

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