PMBus™ Specification Working Group Releases Application Note on Zone Control Operations

System Power Simplification Utilizing PMBus Zone Capabilities for Reading and Writing to up to 255 Devices with a Single Command

Richardson, Texas---May 19, 2016--- The PMBus specification working group has released Application Note AN001 which provides in-depth discussion of the PMBus Revision 1.3 Zone commands and detailed examples to provide guidance to designers and architects implementing zone operations in their systems.

PMBus Revision 1.3 includes new enhancements called Zone Write and Zone Read. The Zone operations bring an important, and powerful, new functionality to PMBus systems. With a single transaction Zone commands provide the ability to read from or to write to all of (or a subset thereof) a system's devices, including any pages within those devices. Implemented on top of the latest SMBus 3.0 [R03] transport specification operating at up to 1MHz clock, Zone commands provide for faster transactions while maintaining backward compatibility with the older PMBus 1.2 protocol.

The Zone Read command enables a fast, prioritized response to a query of any data. For example, a Zone Read operation can be used to discover all of the devices attached to a PMBus in one transaction – something that previously could require up to 255 bus operations. Further, Zone Read operations offer improved methods of retrieving system information and provide a means to receive the information of highest priority to the master first.

The application note includes 6 detailed examples of the use of Zone Read commands. These include *Discovering Zone Active Devices in a System*, *Priority-Based Fault Reporting and Fault Handling*, *Highest Data Value Request*, *Fast Telemetry*, *Priority-Based Telemetry* and *Reconfigurable Sequencing Based on the Power Good Signal*.

Conversely, the Zone Write command provides a solution for synchronized data execution by offering a way to send commands to some or all of the devices on a PMBus in a simple, short transaction. The application note provides 3 examples of Zone Write commands comprised of *Synchronizing Device Turn On and Turn Off*, *Simultaneous Output Voltage Margin* and *Simultaneous Configuration Storage*.

The Application Note, "AN001: Using the ZONE_READ and ZONE_WRITE Protocols*",* is free and can be downloaded from the technical section of the pmbus.org website.

About PMBus

The Power Management Bus (PMBus) is an open-standard digital power management protocol: simple, standard, flexible, extensible, and easy to program for. The PMBus command language enables communication between components of a power system: CPUs, power supplies, power converters, and more. For more information, please go to the PMBus.org website and download an [Introduction to PMBus](#).

About SMIF

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