



Digital Configurable LLC and Multimode PFC Controller

TEA2017

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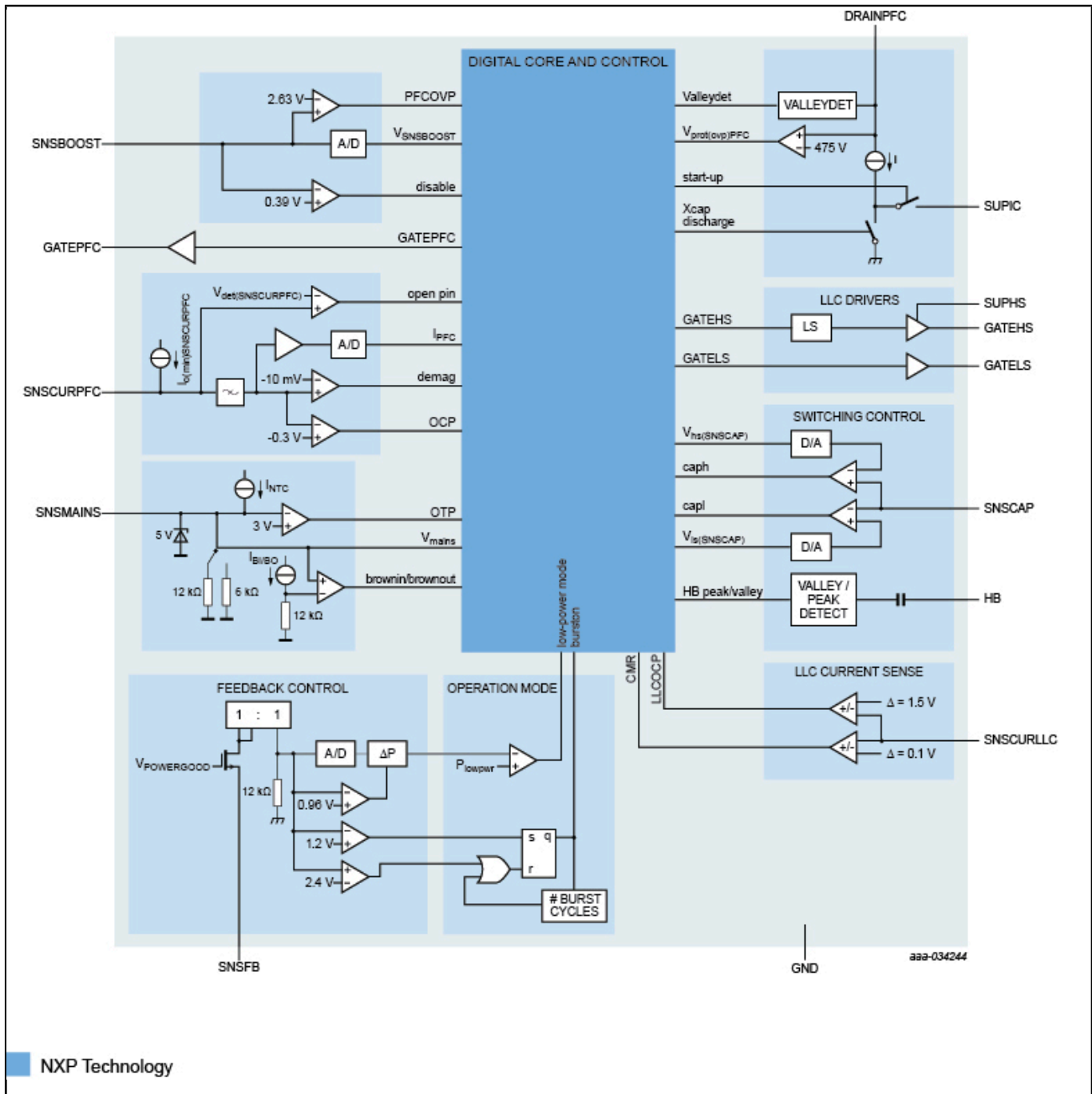
The TEA2017AAT is a digital configurable LLC and PFC combo controller for high-efficiency resonant power supplies. It includes both the LLC controller and PFC controller functionality. The PFC can be configured to operate in DCM/QR, CCM fixed frequency, or multimode which supports all operation modes to optimize the PFC efficiency. The TEA2017ABT version includes a PFC that supports DCM/QR operation only, while the LLC stage is the same as the TEA2017AAT.

All TEA2017xxT versions enable building a complete resonant power supply which is easy to design and has a very low component count. The TEA2017xxT comes in a low profile and narrow body-width SO16 package.

The TEA2017xxT digital architecture is based on a high-speed configurable hardware state machine ensuring very reliable real-time performance. During the power supply development, many operation and protection settings of the LLC and PFC controller can be adjusted by loading new settings into the device to meet specific application requirements. The configurations can be fully secured to prevent unauthorized copying of the proprietary TEA2017xxT configuration content.

In contrast to traditional resonant topologies, the TEA2017xxT shows a very high efficiency at low loads due to the LLC low-power mode. This mode operates in the power region between continuous switching (also called high-power mode) and burst mode.

Digital Configurable LLC and Multimode PFC Controller Block Diagram



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