



NCP1236B65NBGEVB: 65 W Notebook Adapter Demonstration Evaluation Board

The NCP1236 is a new fixed-frequency current-mode controller featuring Dynamic Self-Supply (DSS). This device is pin-to-pin compatible with the previous NCP12xx families. The DSS function greatly simplifies the design of the auxiliary supply and the VCC capacitor by activating the internal startup current source to supply the controller during transients. Due to frequency foldback, the controller exhibits excellent efficiency in light load condition while still achieving very low standby power consumption. Internal frequency jittering, ramp compensation, and a versatile latch input make this controller an excellent candidate for converters where components cost is the key constraints.



In addition, the controller includes a new high voltage circuitry that combines a start-up current source and a brown-out detector able to sense the input voltage either from the rectified ac line or the dc filtered bulk voltage. The high voltage sensing circuitry is used for the overpower protection purposes as well. Overpower protection, overload protection, and next protective features increases the safety level of the final application.

Finally, due to a careful design, the precision of critical parameters is well controlled over the entire temperature range (-40 degrees Celsius to +125 degrees Celsius).

Features and Applications

Features

- Fixed-Frequency Current-Mode Operation with Built-In Ramp Compensation
- 65 kHz or 100 kHz Oscillator Frequency
- Frequency Foldback then Skip Mode for Maximized Performance in Light Load and Standby Conditions
- VCC Operation up to 28 V, with Overvoltage Detection
- 4.0 ms Soft-Start
- Frequency Modulation for Softened EMI Signature, including during Frequency Foldback mode

Evaluation/Development Tool Information

Product	Status	Compliance	Short Description	Parts Used	Action
NCP1236B65NBGEVB	Active	Pb-free	65 W Notebook Adapter Demonstration Evaluation Board	NCP1236BD65R2G	» Contact Local Sales Office

Technical Documents

Type	Document Title	Document ID/Size	Rev
Eval Board: BOM	NCP1236B65NBGEVB Bill of Materials ROHS Compliant	NCP1236B65NBGEVB_BOM_ROHS.PDF - 56 KB	2
Eval Board: Gerber	NCP1236B65NBGEVB Gerber Layout Files (Zip Format)	NCP1236B65NBGEVB_GERBER.ZIP - 2629.0 KB	0
Eval Board: Schematic	NCP1236B65NBGEVB Schematic	NCP1236B65NBGEVB_SCHEMATIC.PDF - 196.0 KB	0
Eval Board: Test Procedure	NCP1236B65NBGEVB Test Procedure	NCP1236B65NBGEVB_TEST_PROCEDURE.PDF - 90.0 KB	0
Video	65 W Notebook Adapter Demonstration Evaluation Board - NCP1236B65NBGEVB Test Procedure	WVD17503/D	

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