NCP1937BADAPGEVB:90 W Adapter PFC+QR 10 MW Evaluation Board

Evaluation Board Description

This combination IC integrates power factor correction (PFC) and quasi-resonant flyback functionality necessary to implement a compact and highly efficient Switched Mode Power Supply for an adapter application.

The PFC stage exhibits near-unity power factor while operating in a Critical Conduction Mode (CrM) with a maximum frequency clamp. The circuit incorporates all the features necessary for building a robust and compact PFC stage while minimizing the number of external components.

The quasi-resonant current-mode flyback stage features a proprietary valley-lockout circuitry, ensuring stable valley switching. This system works down to the 4th valley and toggles to a frequency foldback mode with a minimum frequency clamp beyond the 4th valley to eliminate audible noise. Skip mode operation allows excellent efficiency in light load conditions while consuming very low standby power consumption.

Design Support

- Technical Documentation
- Design Resources
- Technical Support
- Sales Support

Evaluation Board Information

Evaluation Board	Status	Pb-free	Short Description	Parts Used	Action
NCP1937BADAPGEVB	Active	Pb	90 W Adapter PFC+QR 10 MW Evaluation Board	NCP1937A1DR2G, NCP4304ADR2G, NCP4304AMNTWG, NCP4304BDR2G, NCP4304BMNTWG, NCP4355BDR2G	

Technical Documents

Type	Document Title	Document ID / Size	Rev
Eval Board: BOM	NCP1937BADAPGEVB Bill of Materials ROHS Compliant	NCP1937BADAPGEVB_BOM_ROHS.PDF - 152.0 KB	1.2
Eval Board: Gerber	NCP1937BADAPGEVB Gerber Layout Files (Zip Format)	NCP1937BADAPGEVB_GERBERS.ZIP - 102.0 KB	1
Eval Board: Schematic	NCP1937BADAPGEVB Schematic	NCP1937BADAPGEVB_SCHEMATIC.PDF - 132.0 KB	1.2
Eval Board: Test Procedure	NCP1937BADAPGEVB Test Procedure	NCP1937BADAPGEVB_TEST_PROCEDURE.PDF - 156.0 KB	0