



NCP1075NONGEV B: 8W, DUAL, NON-ISOLATED EVALUATION BOARD

This evaluation board features an 8 watt, off-line, dual output, flyback power supply intended for powering white goods or industrial equipment circuitry which does not require output isolation from the AC mains. The flyback converter is designed around ON Semiconductor's 100 kHz NCP1075 monolithic switching controller. A simple voltage sensing and feedback scheme utilizing a current mirror transistor pair (Q1), and zener diode (Z1) is utilized for low cost yet effective output regulation for most typical applications.



This particular design example provides output voltages of 5V and 8.5V but these can be tailored to other voltages to accommodate the specific requirements by appropriate transformer turns ratio changes and alterations to voltage setting zener Z1 and resistor R6.

Features and Applications

Features

- Schottky diodes (D6, D7) on both outputs for high efficiency
- Dual sensing options depending on desired regulation accuracy
- Input EMI filter for conducted emission compliance
- Input fuse and inrush limiting resistor (R1)
- Good load and cross regulation on 8.5Vout due to secondary winding technique on transformer

Evaluation/Development Tool Information

Product	Status	Compliance	Short Description	Parts Used	Action
NCP1075NONGEV B	Active	Pb-free	8W, DUAL, NON-ISOLATED EVALUATION BOARD	MMSZ5229BT1G , NCP1075STBT3G , NST45011MW6T1G	» Contact Local Sales Office

Technical Documents

Type	Document Title	Document ID/Size	Rev
Eval Board: BOM	NCP1075NONGEV B Bill of Materials ROHS Compliant	NCP1075NONGEV B_BOM_ROHS.PDF - 44.0 KB	0
Eval Board: Gerber	NCP1075NONGEV B Gerber Layout Files (Zip Format)	NCP1075NONGEV B_GERBER.ZIP - 78.0 KB	0
Eval Board: Schematic	NCP1075NONGEV B Schematic	NCP1075NONGEV B_SCHEMATIC.PDF - 41.0 KB	0
Eval Board: Test Procedure	NCP1075NONGEV B Test Procedure	NCP1075NONGEV B_TEST_PROCEDURE.PDF - 66.0 KB	0
Video	8W, Dual, Non-Isolated Evaluation Board - NCP1075NONGEV B Test Procedure	WVD17501/D	

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8W, Dual, Non-Isolated Evaluation Board - NCP1075NONGEV B Test Procedure



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