

1MHz High Current High Efficiency Synchronous Step-Up Converter in ESOP8

DESCRIPTION

ETA1096 is an ETA Solutions' high efficiency, high frequency synchronous Step-Up converter, capable of delivering output current up to 3A at a 5V output from a 3.6V input. With a low $R_{ds(on)}$ Power MOS and a built-in synchronous rectifier, its efficiency can be as high as 93% at a 5V/2.1A load. This greatly minimizes power dissipation and reduces heat on the IC, making it ideal for applications that require small board space and have stringent temperature constraints, such as power banks and mobile devices. ETA1096 also incorporates ETA Solutions' True-Shutoff[®] technology that protects against overload and short-circuit conditions. With 1MHz switching frequency, small external input and output capacitors and inductor can be used.

All of these features are integrated in an economic ESOP8 package, and peripheral component count is minimal.

FEATURES

- ◆ Up to 97% Energy Converting Efficiency
- ◆ Up to 3A output current at 5V output, 3.6V input
- ◆ Externally adjustable output voltage
- ◆ True Shut off during shutdown and output short-circuit protection
- ◆ Thermal Shutdown
- ◆ ESOP8 package

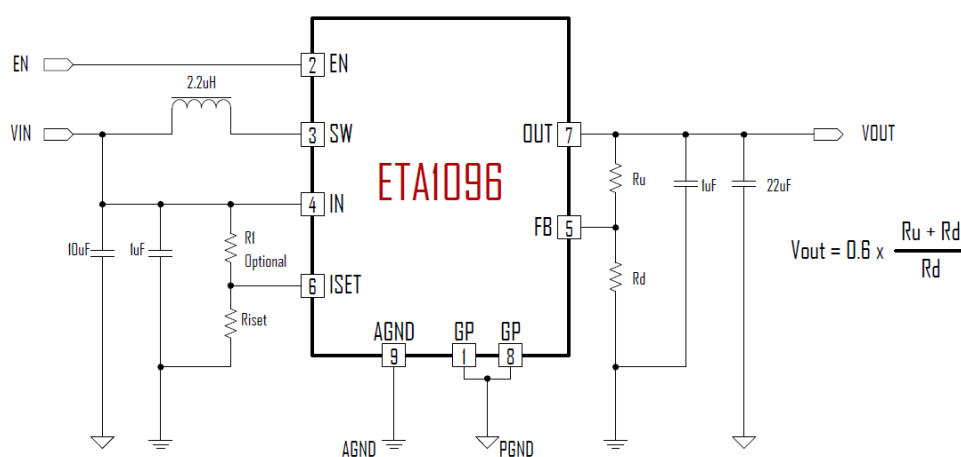
APPLICATIONS

- ◆ 3G/4G PCI-e module
- ◆ Power Bank
- ◆ Mobile 3G/4G Mi-Fi

ORDERING INFORMATION

PART	PACKAGE PIN	TOP MARK
ETA1096E8A	ESOP8	ETA1096 YWW2L

TYPICAL APPLICATION



Riset is for inductor peak current limit setting: $I_{peak} = 180K/R_{iset}$ (A)
 Rl is optional, for output current limit less sensitive to V_{in} voltage.

Typical Application Circuit