

1MHz, Forced-PWM, High Output current Synchronous Step-Up Converter

DESCRIPTION

ETA1093 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. ETA1093 also incorporates ETA Solutions' True-Shutoff[®] technology that protects against overload and short-circuit conditions. All of these features are integrated in a tiny QFN3x3-16 package. With 1MHz switching frequency, small external input and output capacitors and inductor can be used.

ETA1093 employs a FORCED-PWM control scheme, therefore, the switching frequency is fixed at any load. It makes ETA1093 perfect for systems that sensitive to low frequency noise, like audio system and communication system.

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
- ◆ Forced PWM at light load
- ◆ QFN3x3-16

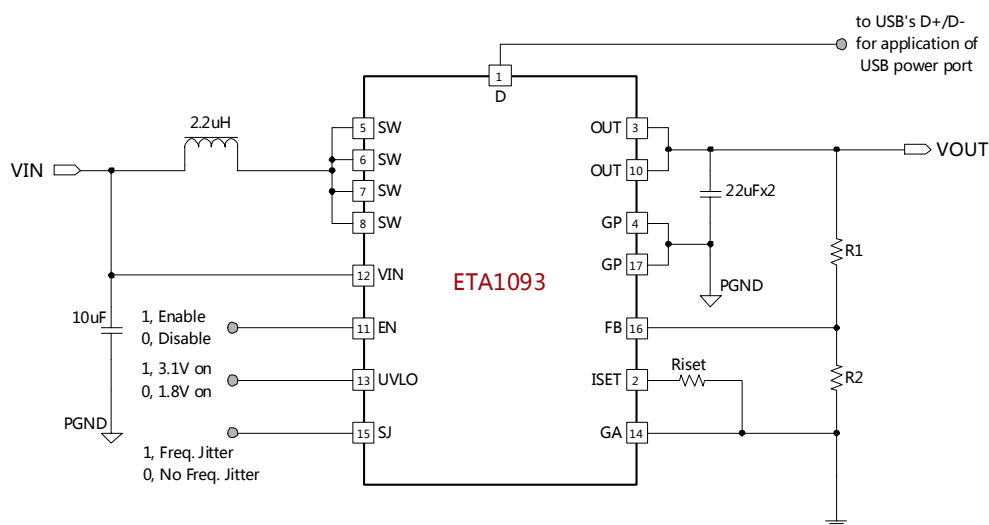
APPLICATIONS

- ◆ Power Bank
- ◆ Mobile 3G/4G Mi-Fi
- ◆ Mobile Bluetooth music player and speaker

ORDERING INFORMATION

PART	PACKAGE PIN	TOP MARK
ETA1093Q3Q	QFN3x3-16	ETA1093 YWW2L

TYPICAL APPLICATION



Typical Application Circuit