

## 2.5A, 3MHz Switching Charger with Dynamic Power Path Management

### DESCRIPTION

ETA6005 is a switching Li-Ion battery charger with dynamic power-path control and input current limiting. When a battery is connected, depending on the battery voltage, the DC-DC switching regulator either pre-conditions, fast-charges the battery or just regulates a system voltage ( $V_{SYS}$ ) to a preset voltage. It does not require an external sense resistor for current sensing. The charging current is determined by programming ISET1 or ISET2 pin, depending on the state of the USB\_DET. If USB\_DET is low, indicating an valid AC adapter input is present, the charge current is set by ISET1; otherwise, it is set by ISET2. When the battery voltage reaches the termination voltage i.e. 4.35V, the charging path disconnects SYS to BATT. The ETA6005 also includes a dynamic power path when the SYS load current exceeds current limit of the DCDC regulator internally set, the SYS voltage falls below  $V_{BATT}$ , ETA6005 turns on the power-path to supplement the system load through the battery.

### FEATURES

- ◆ Switching Charger with Power Path Management
- ◆ Up to 95% DC-DC Efficiency
- ◆ 50mΩ Power Path MOSFET
- ◆ Up to 2.5A Max charging current
- ◆ Instant on with a dead Battery or no Battery
- ◆ No battery detection
- ◆ No External Sense resistor
- ◆ Programmable USB and AC IN Charging Current

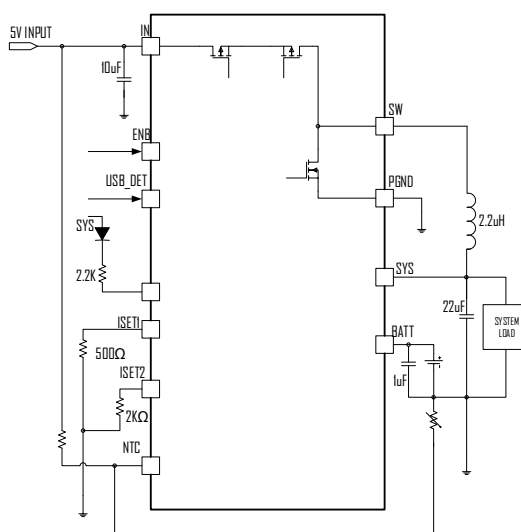
### APPLICATIONS

- ◆ Tablet, MID
- ◆ Smart Phone
- ◆ Power Bank

### ORDERING INFORMATION

PART	PACKAGE PIN	TOP MARK
ETA6005Q3Q	QFN3X3-16	ETA6005 - Product Number YWWPL - Date Code

### TYPICAL APPLICATION



2A Switching Charger with Dynamic Power Path