5A, 2.2MHz I²C Controlled Output Synchronous Step-Down Converter

DESCRIPTION

The ETA3555 is a high-efficiency, DC-to-DC step-down switching regulator, capable of delivering up to 5A of pulse load. It integrates an I²C interface that dynamically scales the output voltages on demand. The DCDC control block belongs to a new breed of high frequency synchronous Step-Down converter that combines the advantages of voltage mode control and Constant-On-Time control. Its adaptive Constant-On-Time control dynamically changes switch on time to achieve a constant switching frequency. It does not have the minimum on-time constrain normally a fixed-frequency current mode Step-down requires, allowing it to go down to very low duty ratio without affecting loop stability. The voltage mode nature also provides a more superior load transient response and a seamless transition from PFM to PWM modes. Cycle-by-cycle current limit provides output short-circuit protection and an input OVP function guards ETA3555 against possible input voltage surge. ETA3555 is housed in a 2mm x 1.6mm CSP-20 Package.

FEATURES

- I²C Dynamic Output Control
- Synchronous High Efficiency up to 95%
- Fast load transient response
- Capable of Delivering 5A
- Input OVP at 6V
- No External Schottky Diode Needed
- Thermal shutdown and UVLO
- CSP-20 (4x5) package

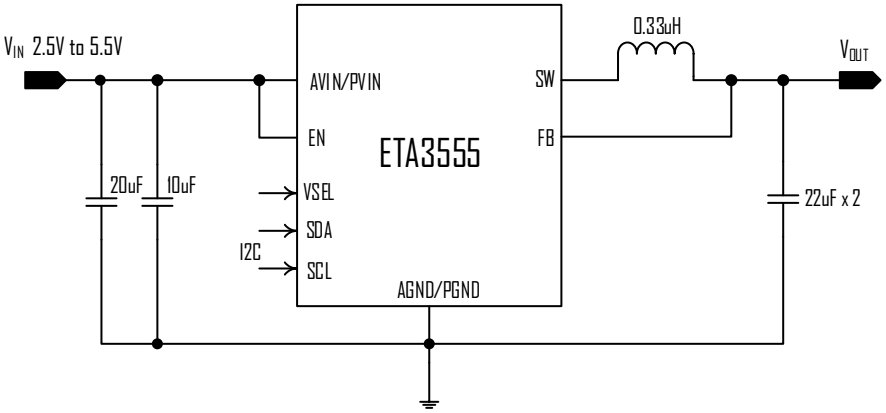
APPLICATIONS

- ARM based CPUs
- Smart Phone
- Tablet, MID
- Smart Set-Top Box, OTT

ORDERING INFORMATION

PART	PACKAGE PIN	TOP MARK
ETA3555CSU	CSP-20 (4x5)	3555 YWWL (Date Code)

TYPICAL APPLICATION



Typical Application Circuit