

## YX4507

### Single High Speed Low Side Gate Driver with integrated LDO

#### PRODUCT INTRODUCTION

The YX4507 is a high performance single-channel low side gate driver designed for use in high-speed GaN FET and Si MOSFET applications. Its low propagation delay and high peak current make it suitable for a range of applications including LiDAR, time-of-flight, facial recognition, and power converters. The YX4507 can deliver high peak current up to 4A source and 8A sink into capacitive load. The integrated LDO endures supply voltage up to 35V and generates accurate 5V output with high loading capability. YX4507 supports rail-to-rail drive, split gate driver, and is TTL logic compatible with 5V maximum input voltage.

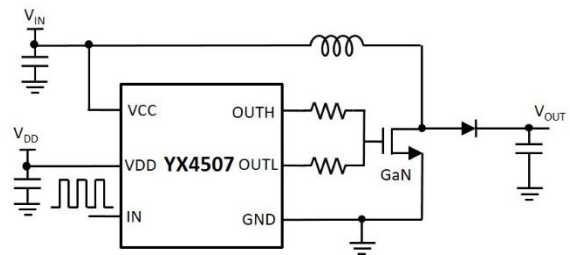
The YX4507 features under voltage lockout (UVLO) and over temperature protection ensuring the device operates safely and reliably. The YX4507 is available in an industry standard and small 6-lead DFN 2mmx2mm package with exposed pad and low parasitic inductance and resistance, suitable for high frequency power systems.

#### FEATURES

- Integrated 5V LDO with input voltage up to 35V for compact system solution
- 5V LDO with 70mA current limit and output short protection (current foldback)
- Low side ultra-fast gate driver for GaN FET/ Si MOSFET
- 4A/8A peak source and sink current
- Split Gate driver with programmable pull-up and pull- down driving capability
- TTL and CMOS logic input with hysteresis
- Default low output when input pins floating
- 3.4ns propagation delay
- 0.5ns fast rise and fall time
- Build-In UVLO and OTP protection
- 6-Lead DFN 2mmx2mm Package

#### APPLICATIONS

- GaN FET/ Si MOSFET gate driver
- DC-DC Converter, Isolated Converter
- LiDAR, laser drivers, facial recognition
- Motor drives and Energy Storage
- Class-D audio amplifiers and wireless charger



Simplified boost converter circuit

	Split Gate Driving	Integrated LDO	Slew Rate Control	Current Sensing	Temperature sensing
YX4505	○				
YX4506			○		
YX4507	○	○			
YX4508				○	
YX4509		○			○