

1 Features

- Integrated 150mΩ GaN transistor
- Integrated startup switch (JFET)
- Integrated high-voltage starting function
- Integrated X capacitor discharge function
- Integrated input overvoltage protection and input undervoltage protection
- Low startup and operating current
- Valley lock mode, the maximum operating frequency is 500kHz
- Ultra-wide VDD power supply range 10~12V
- Integrated EMI optimization technology
- Light load hiccup mode operation and noise optimization
- Integrated self-recovery mode protection
 - . VDD overvoltage/undervoltage protection (VDD OVP/UVLO)
 - . Output overvoltage protection (OVP)
 - . Input undervoltage protection (BOP)
 - . Input overvoltage protection (LOVP)
 - . On-chip over-temperature protection (OTP)
 - . External overheating protection
 - . Cycle-by-cycle current limit (OCP)
 - . Overload protection (OLP)
 - . Leading edge blanking (LEB)
 - . Package type 32-QFN

2 Applications

- USB type-C power adapters
- Cell-phone and tablet chargers
- Laptop adapters
- Consumer electronics

3 Description

The Combo IC series offer highly integrated solution for AC/DC conversion application with 700V enhancement-mode GaN power transistor, 700V green way startup switch as well as tailored regulated mode and versatile protect function. This economic and efficient solution can supply up to 70W on flyback and 100W on boost application.

CPP620 yields stable operation at 500 kHz high frequency to shrink transformer and output capacitor, therefore the module size and weight is significantly reduced, and power density is much higher than the traditional switching power.

PART NUMBER	PACKAGE	BODY SIZE (NOM)
CPP620	QFN 8x8-15L	8.0 mm × 8.0 mm

4 Simplified Schematic

