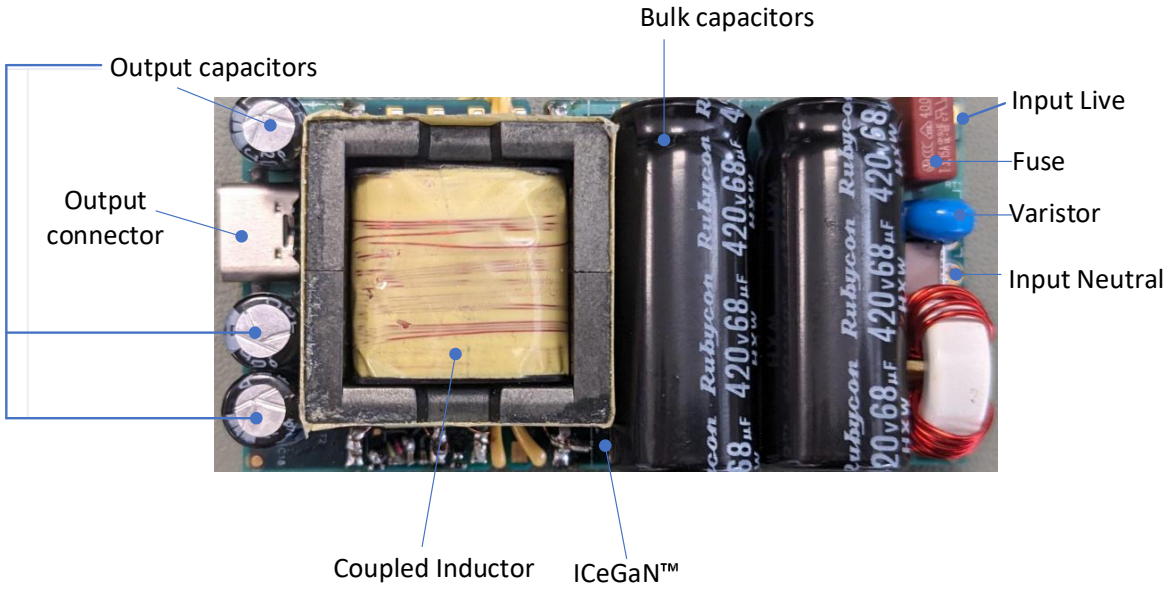
Specifications

Parameter	Details
Topology	Quasi-resonant flyback
Power device	CGD65B240SH2
Input voltage	90–264 V_{ac} 50–60 Hz
Output voltage	5/9/12/15/20 V
Output power	65 W
Full-load output current	3.25 A (@ 20 V)
Minimum efficiency	92.0% (20 V @ 3.25 A)
No-load power	20 mW at 115 V_{ac} and 40 mW at 230 V_{ac}
Switching frequency	25–180 kHz variable switching frequency
Board dimensions	67.5 x 35.2 x 16.5 mm

Component side



Start up

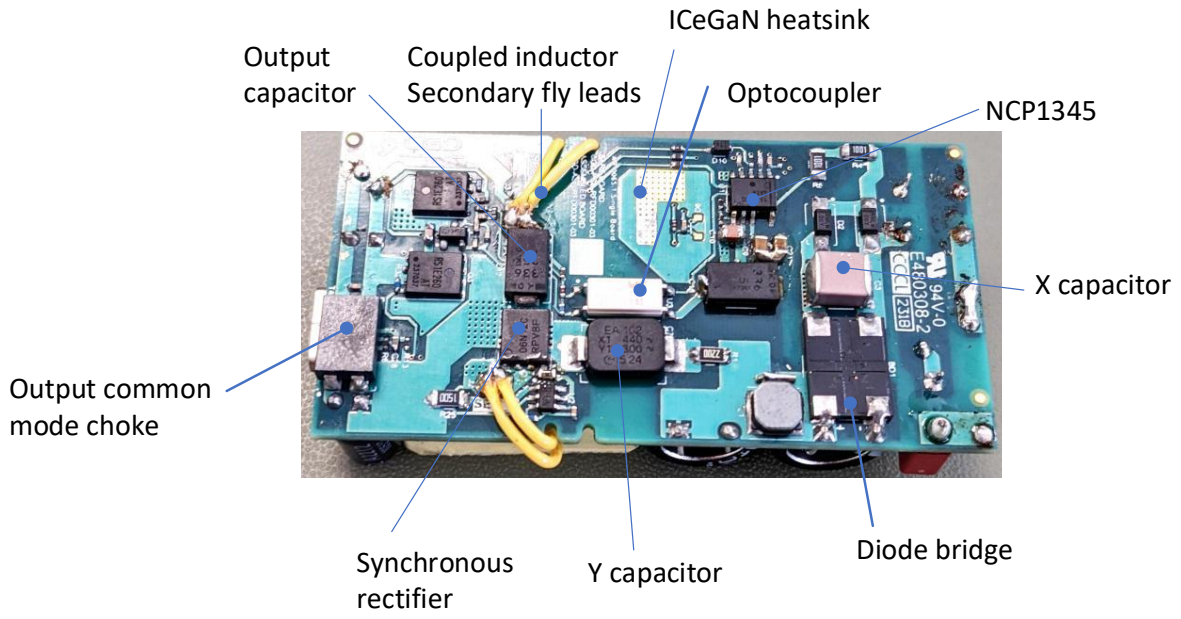
The unit will power up initially to 5 V and is USB programmable.

Normal operation

The unit is rated for full universal input.

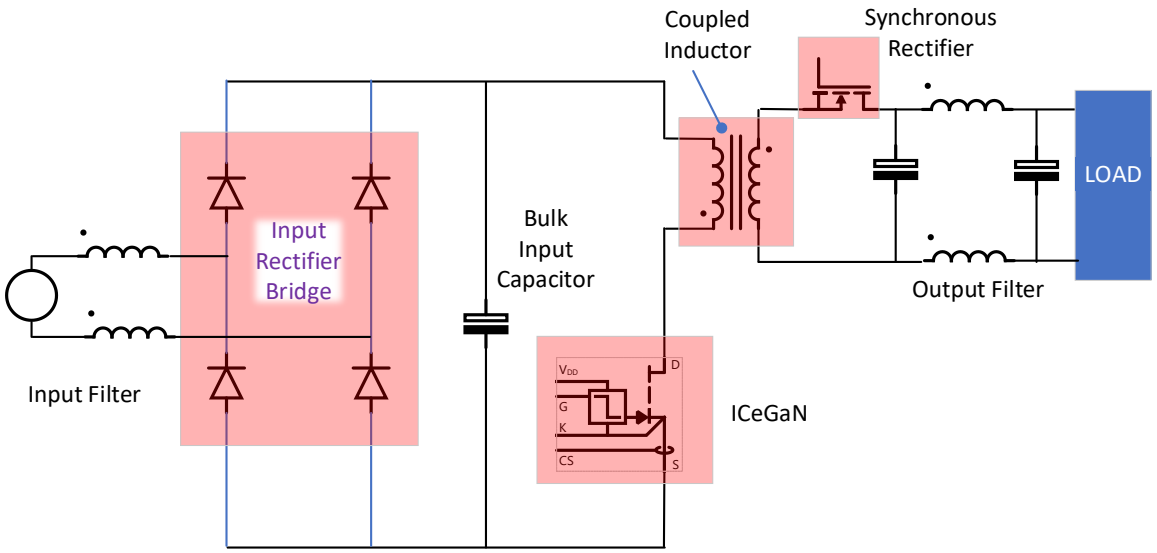
Solder side components

The figure below highlights key components for quick reference.
Please refer to the full user guide **CGD-UG2403** for further details.



Block diagram

The block diagram below provides a simplified representation of the circuit schematic.



Technical support

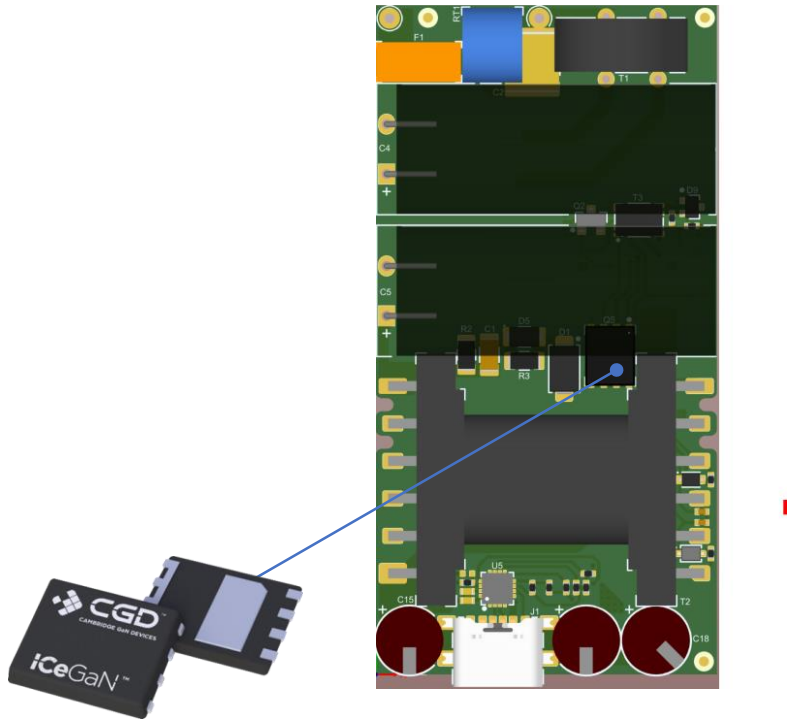
Please refer to the complete user guide **CGD-UG2403** for more details.

For support, please contact CGD at techsupport@camgandevices.com.

Cambridge GaN Devices Limited
Jeffreys Building, Suite 8
Cowley Road
Cambridge CB4 0DS
United Kingdom

Dare to innovate differently

65 W Quasi-Resonant Flyback Reference Design



Features

- Features 240 mΩ 650 V GaN HEMTs based on CGD ICeGaN™ technology
- Combines the unique built-in current sense solution of CGD GaN HEMTs that allows the HEMT to use entire source plane as heatsink
- Adjustable output voltage
- High power density USB PD charger
  - Single board design for ease of manufacture
  - Low manufacturing cost
  - No heatsink and user-adjustable overtemperature protection
  - Universal input
  - Single switch topology