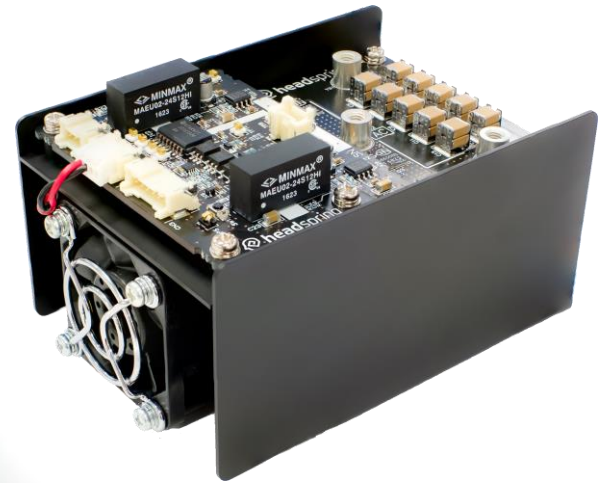


Circuit Block for Power Electronics

HGCB-2B-401150

Circuit Block with GaN Power Device



Abstract

- Equipped with GaN E-HEMT by GaN Systems
- 2 GaN Power Devices, Gate Drives, Heat-sink, FAN on board
- External Gate Input and Power Source needed
- Capacitor for Filter, 24V/5V Power Supply, Cabling, Controller are to be provided by customers.
- Control Circuit and Main Power Circuit are Isolated.
- Hardware-based Circuit Protection against Shoot-through or Wrong Gate Pattern Input

Features

GaN E-HEMT, Isolated Gate Drives on Board

- Easy Evaluation Environment of GaN Devices
 - ✓ Only External Weak Current Circuit needed
 - ✓ Isolation Implemented

Simple and Open Structure

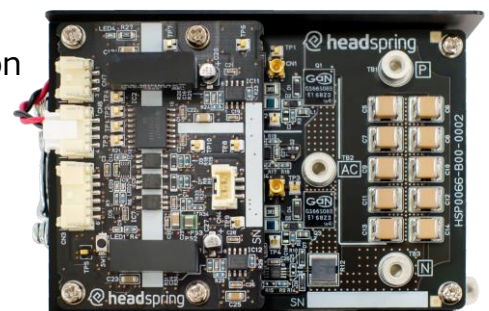
- Easy to Measure GaN and surrounding Parts
 - ✓ Many Test Pins on Circuit Board for Various Evaluation
 - ✓ Minimum Circuit Structure for Various Power Solutions

Free Circuit Diagram Information Provided

- Evaluation by both Theory and Experiment
 - ✓ For Reference of User's Circuit Design
 - ✓ Various Customization Available

Easy to Carry

Space-saving
of Lab.



As of June/2017

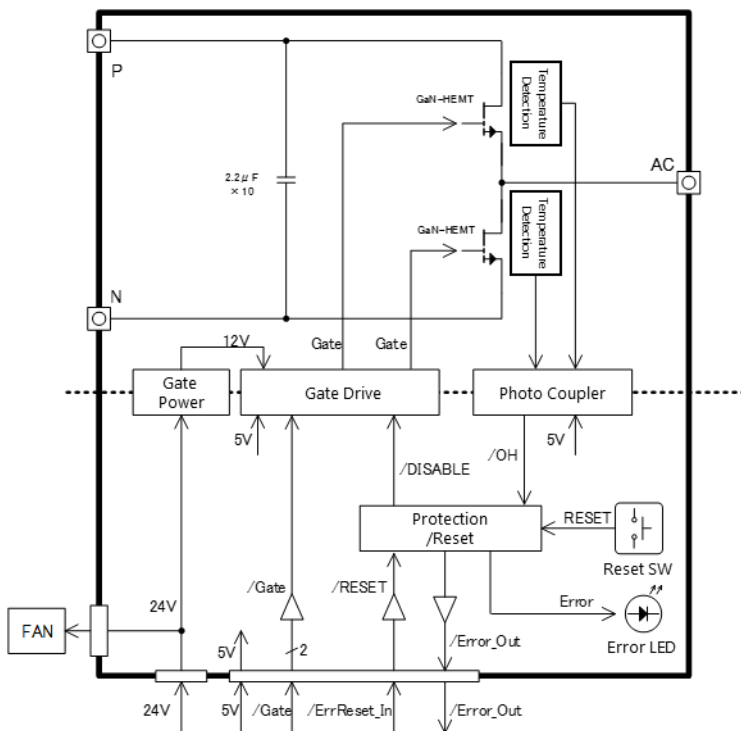
* Specifications and Design are subject to change

Specification (Model: HGCB-2B-401150)

Subject	Specification	Notes
Size	W 106 mm	Except for the Projections
	D 75 mm	
	H 55 mm	
Weight	370 g	
Voltage Range (High)	0 ~ 400 V	Between P-N port
Voltage Range (Low)	0 ~ 380 V	Between P-AC, AC-N Port
Current Range (Low)	± 15 A	AC port Current (Derating in High Frequency and High Voltage Range)
Switching Frequency	~ 5 MHz	
Dead time	> 30 ns	With Circuit Protection against Shoot-through

※製品仕様は予告なく変更することがあります

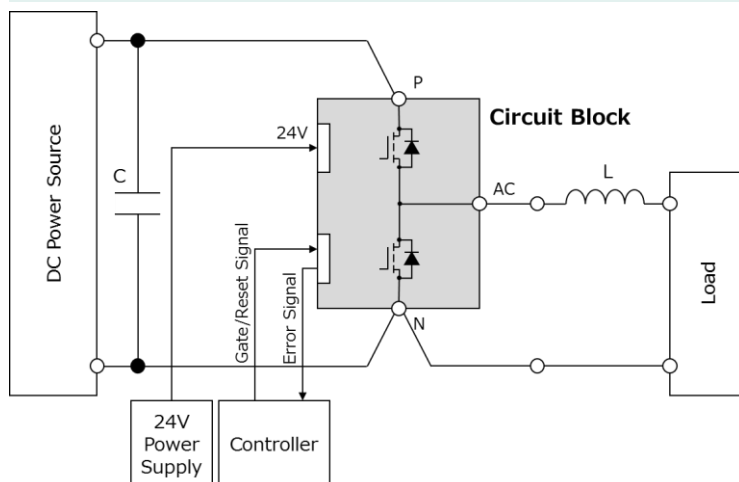
Block Diagram



External Interface

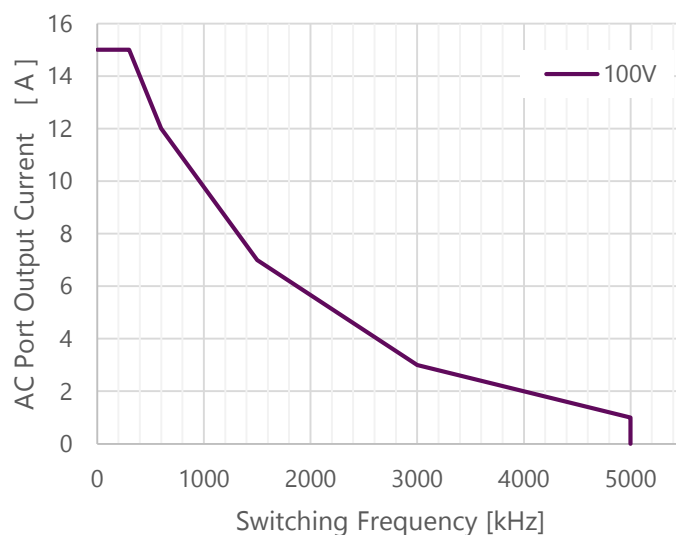
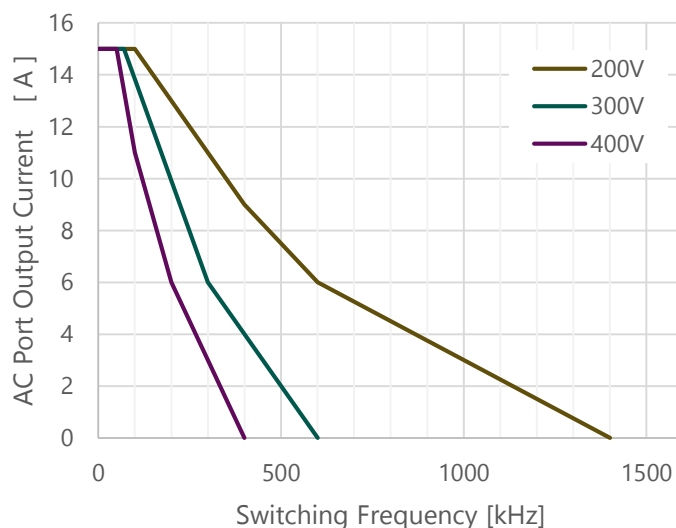
Signal	I/O	Description
Gate Signal	Input	5V TTL (Negative) Pull-up with 4.7kΩ
Error Reset Signal	Input	5V TTL (Negative) Pull-up with 4.7kΩ
Error Signal	Output	<ul style="list-style-type: none"> 5V TTL (Negative) ("Low w/ error") Overheat Protection Detection

Connection Example



DC Power Source, 24 V Power Supply, Controller, Load, Reactor, Capacitor should be supplied by customer.

Derating (Tested with Connection Example)



As of June/2017

*Specifications and Design are subject to change