

MDC901 GaN Gate Driver Evaluation Kit

Integrated 200V High-Side and Low-Side Gate Driver



MDC901 is the most advanced 200V LS & HS GaN gate driver today, delivering unparalleled features for precise and reliable GaN HEMT operation. With the MDC901, complete optimization of electrical, thermal, and safety aspects of high performance GaN is ensured.

With an equally matched gate driver to the cutting-edge GaN transistors, full device performance can be exploited.

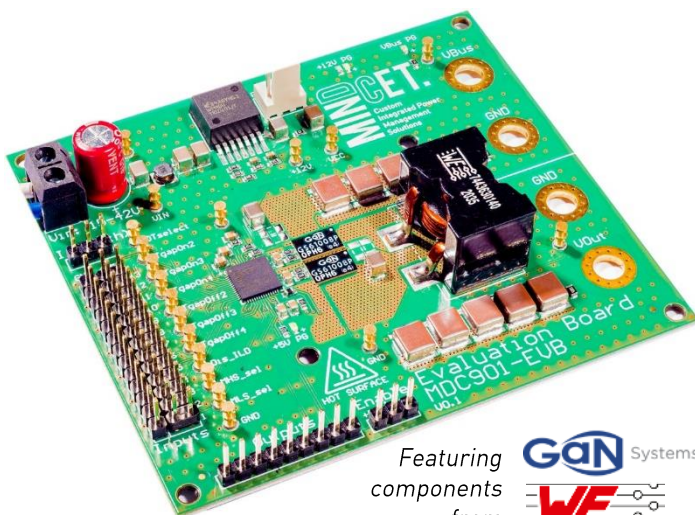
The complete MDC901 documentation (including datasheet and technical manual) can be found [here](#).

Highlighted Gate Driver Features

- Unprecedented gate drive strength up to 9A
- Separate pull-up and pull-down outputs for gate drive tuning
- Programmable true floating regulators (5 or 6V), protecting the sensitive GaN gate against overcharging
- Integrated charge pump for 100% duty cycle applications
- 200V operation, supporting negative source-voltage transients down to -4V
- High efficiency integrated bootstrap diodes
- Automatic closed-loop dead-time and programmable dead-time
- Gate signal monitoring outputs, die temperature monitoring and UVLO outputs
- Integrated 5V regulator enables single supply voltage operation

MDC901-EVB Half-bridge Evaluation Kit

The evaluation kit enables the direct evaluation of the MDC901 200V gate driver, utilizing GaN System's 100V enhancement mode HEMTs and Würth Elektronik components in a half-bridge configuration. The kit provides complete out-of-the-box testing capabilities for quick implementation. At a PCB size of 80x90mm², the evaluation board is compact and is accompanied with all required components to directly begin testing.



Featuring
 components
 from




Evaluation Kit Features and Components

- 20A/50V operation conditions (100V / 40A possible, based on thermal limitation)
- Thermistor close to GaN for temp monitoring
- Regulated 12V Fan supply
- Auxiliary components included:
 - Heatsink & fan assembly w/ thermal interface material
 - Plexiglass board cover
 - Electric cables
 - Spacer studs and connectors
 - Precautions manual
 - Robust, re-useable box for safe kit storage (can be re-purposed)