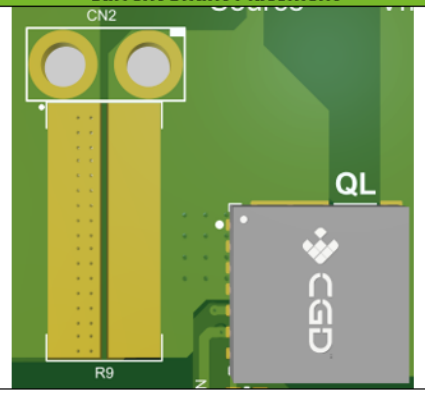
Current Measurement

Current Shunt Placement	Ref Des.	Type
	CN2	Through-hole current shunt SDN-414
	R9	Surface mount current shunt PMK UFCS-R011

- Two locations for sensing the current of the low side ICeGaN® device.
- CN2: through-hole current shunt
- R9: surface mount current shunt
- For more details refer to user guide **CGD-UG2601**
- *Board will arrive with R9 shorted. Remove the short when placing a current shunt.*

Technical support

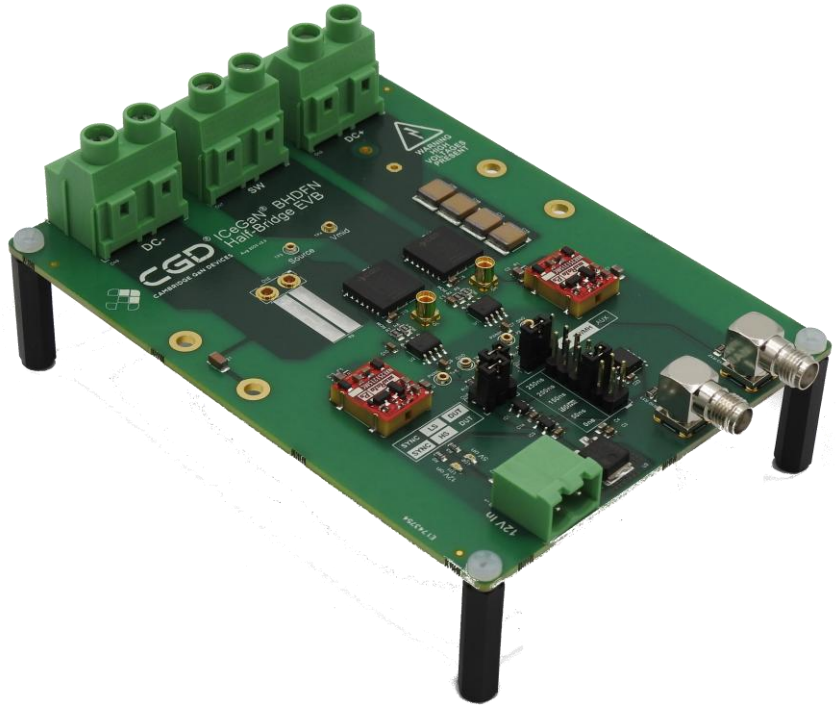
Please refer to the complete user guide **CGD-UG2601** for more details.

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

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Dare to innovate differently

Half-bridge Evaluation Board with P2 ICeGaN® and Current Measurement



Features

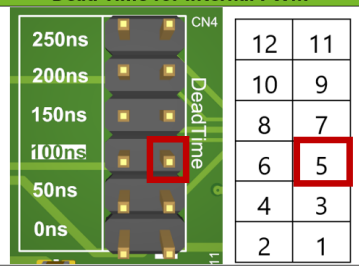
This evaluation board demonstrates how ICeGaN can achieve fast and clean switching under high dv/dt and allows for accurate E_{ON} and E_{OFF} measurements.

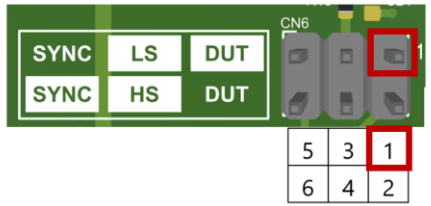
- Features 2 x P2 Series 650-V GaN HEMTs in the BHDFN package.
- Easy to use: a wide variety of test points, soldering pads, and connectors.
- More flexibility: isolated gate driving, multiple PWM modes, and configurable deadtime
- Suitable for high power: heatsink is included to support continuous operation.

Test Point Locations

Signal	Reference Designator	Connector	Comment
V_{SW}	TP4 / TP3	Mill-Max	Low side (QL) V_{DS} (probe ground connected to source terminal of QL)
Source Current	CN2	Mill-Max	Opening for 5.08mm pitch current shunt
	R9	Surface mount	Pads for PMK UFCS current shunt
LS Gate	J2	MMCX	Low side ICeGaN gate
HS gate	J1	MMCX	High side ICeGaN gate
PWML	TP6 / TP5	Mill-Max	Low side PWM driver input
PWMH	TP2 / TP1	Mill-Max	High side PWM driver input

Jumper Options

Dead Time for internal PWM	Pin Number	Name
	1	0 ns
	3	50 ns
	5 (red)	100 ns
	7	150 ns
	9	200 ns
	11	250 ns
	2,4,6,8,10,12	PWM w/ dead time

Internal PWM Selection	Pin Number	Name	Description
	1 (red), 2	DUT	PWM signal for the hard-switching device (DUT) in DPT.
	3	LS	To LS gate driver input pin.
	4	HS	High side PWM signal going to CN10 (see Table 6)
	5, 6	SYNC	Complementary DUT PWM signal for the soft-switching device in DPT (generated by dead time unit in Table 4).

High Side control	Pin Number	Name	Description
	1 (red)	HS	Input from CN6 pin 4 (see Table 4)
	2	PWMH	High Side gate driver signal
	3	AUX	Input from J4 – PWM Aux

I/O ports

The figure below highlights the I/O ports of the evaluation board. The deadtime and PWM modes can be easily changed by moving the appropriate headers. Please refer to the full user guide **CGG-UG2601** for more details on the input and output connectors as well as all the available test points.

