



Product brief

WCDSC006 - EiceDRIVER™

Ensuring robust and efficient wireless charging operation

Infineon's new WCDSC006 EiceDRIVER™ is suitable to drive both high-side and low-side MOSFETs in a half-bridge inverter configuration, especially for inductive wireless power. The inputs of the driver are TTL logic compatible and can withstand input voltages up to 7 V regardless of the VDD voltage. Although the high-side and the low-side power devices are driven independently, the driver enforces a 5 ns (typ) dead time to prevent shoot through.

The driver can be used with a wide range of power MOSFETs such as Infineon's OptiMOS™ 5. The WCDSC006 has a current capability of 4 A sink and 2 A source, in addition it offers a maximum bootstrap voltage of 60 V for high input voltage operation. It is available in a PG-WSON-10 package with exposed pad, connected to ground, to aid power dissipation.

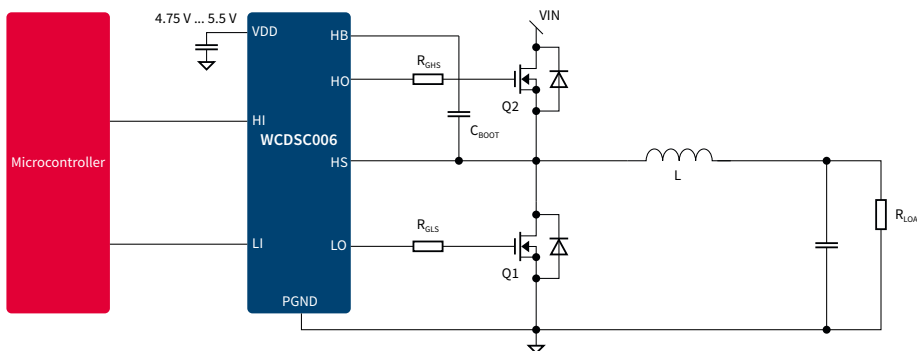
Infineon's half-bridge drive is a perfect fit to ensure a safe wireless power transfer by achieving high robustness and efficiency.

Key features

- > -0.3 to 7 V input bin capability for increased robustness
- > Independent high-side / low-side TTL logic inputs
- > Integrated bootstrap diode
- > Maximum bootstrap voltage of 60 V
- > 4 A sink and 2 A source current capability for high-side and low-side drivers

Key benefits

- > Increased robustness
- > Faster switching mode and higher efficiency results
- > Increase flexibility
- > No need for external components
- > Higher margin and more robust operation
- > No risk of cross conduction



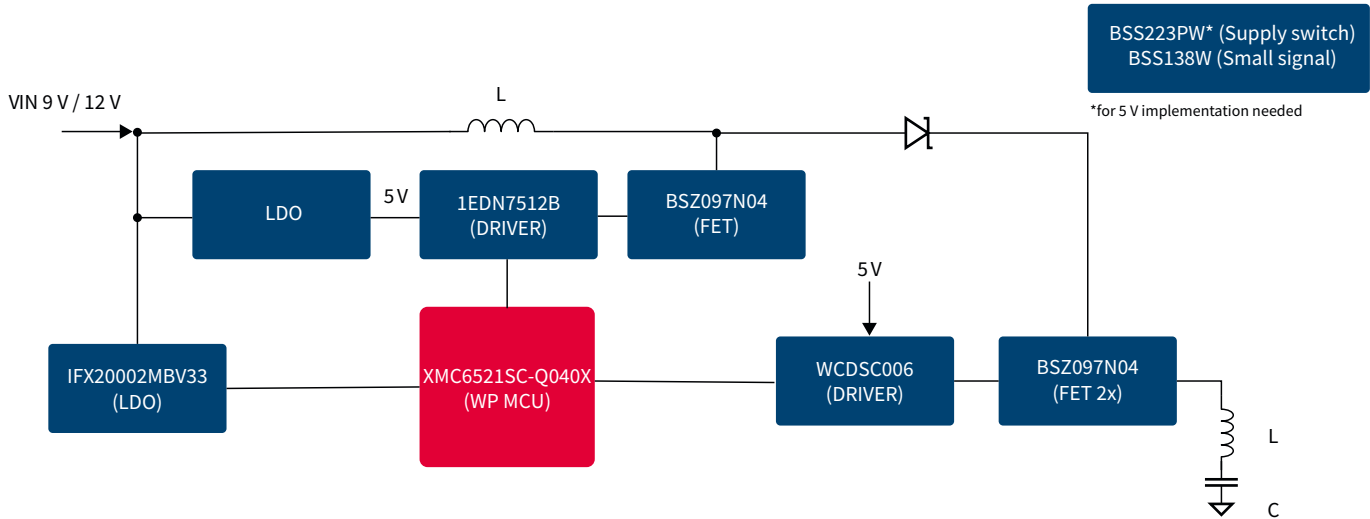
Product	Input Logic	Package Type	Voltage Class [V]	High side		Low side		UVLO max.[V]	Release status
				Peak source current [A]	Peak sink current [A]	Peak source current [A]	Peak sink current [A]		
WCDSC006	TTL	WSON-10	60	2	4	2	4	4.5	In mass production



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Block diagram – Qi solution for charging smartphones using WCDSC006



REF_10WTx_QI_4102

- > Valkyrie the 15W Qi transmitter (Tx) for charging smartphones
- > WCDSC006 as key product to ensure efficient wireless power transfer



Software IP and system solution developed by our partner.

Published by
Infineon Technologies Austria AG
9500 Villach, Austria

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