

# Evaluation kit for EiceDRIVER™ 2EDN7524G dual-channel low-side non-isolated gate driver IC KIT\_DRIVER\_2EDN7524G

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# General description

## Introduction

This evaluation kit provides a test platform for Infineon's dual-channel non-isolated gate driver IC EiceDRIVER™ 2EDN7524G in WSON 8pin package.

The complete driving circuitry is integrated into the board to allow a simple and practical step-by-step discovery of the 2EDN7524G characteristic and to evaluate the influence of the surrounding driving circuitry on the signal delivered to the load. The dual-channel driver is intended to feed two low-side MOSFETs in TO-220 package, which can be allocated on the board. For this purpose a CoolMOS™ or OptiMOS™ power MOSFET solution from Infineon can be selected.

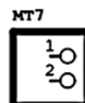
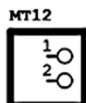
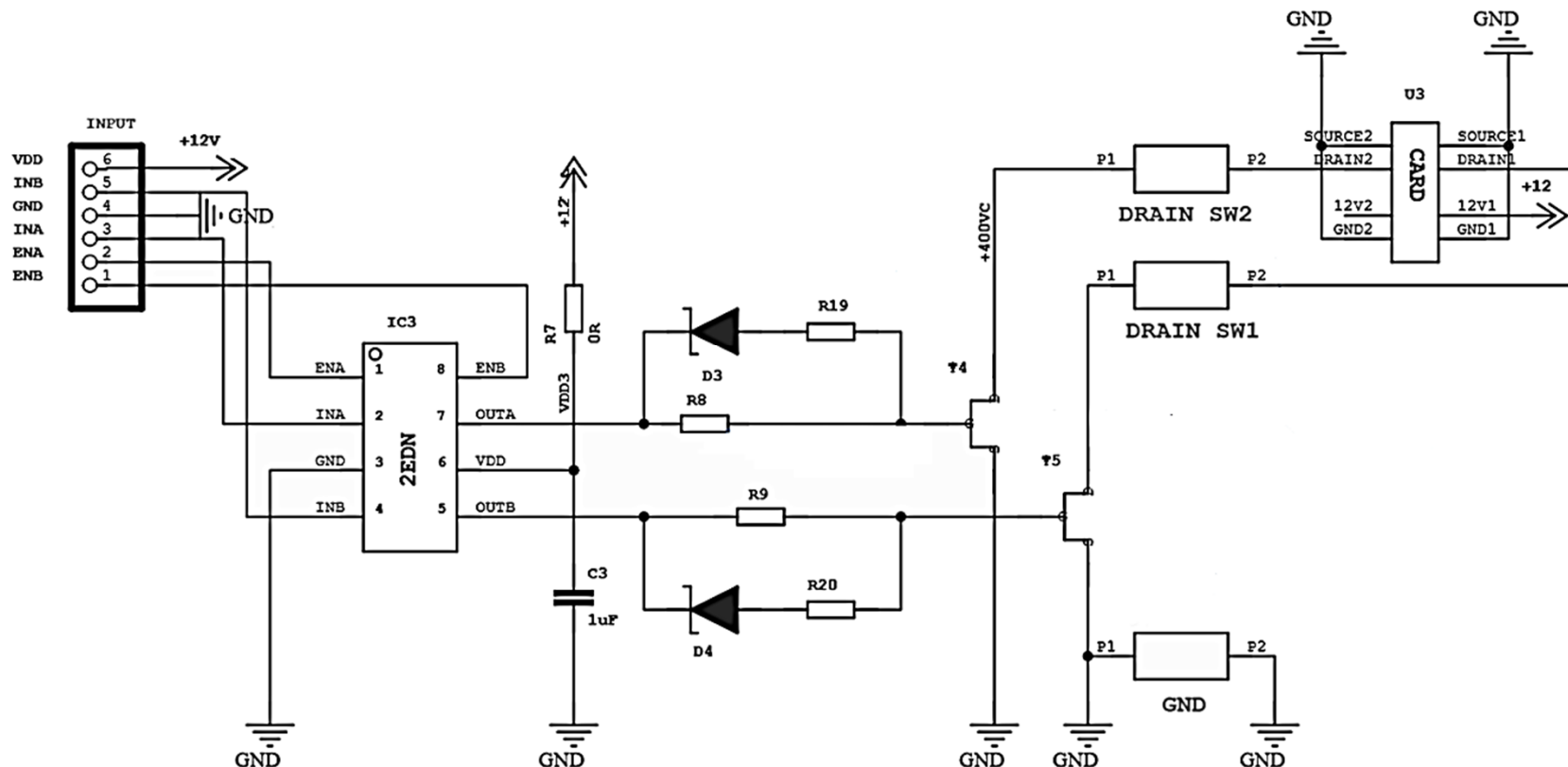
The evaluation kit requires an external function generator and a DC power supply to provide the input signals to the 2EDN7524G. As shown in the quick start guide, the easiest and immediate way-to-use the board is with zero-power applied to the MOSFETs. In that operating condition, the 2EDN7524G load is equivalent to a pure RC filter. Testing with different MOSFETs is a suggested option to evaluate and understand the impact of the MOSFETs input capacitance on the driving timing behavior.

Additionally, the possibility to power-up the MOSFETs and then, trigger the switch of the devices, is purposely provided through banana connectors. An external circuitry must be properly built in that case to provide the bulk voltage and limit the current. Furthermore, pads for a possible connection to a daughter card are included.

## Summary of features:

- › Complete and easy-to-use solution platform integrating Infineon's 2EDN7524G EiceDRIVER™ gate driver IC and CoolMOS™ or OptiMOS™ power MOSFETs
- › Possible to evaluate the influence of the gate load ( $R_g$  or  $C_{gs}$ ) on the driving behavior of the 2EDN7524G
- › Easy to replace and test different power MOSFETs in TO-220 package

# Kit schematic



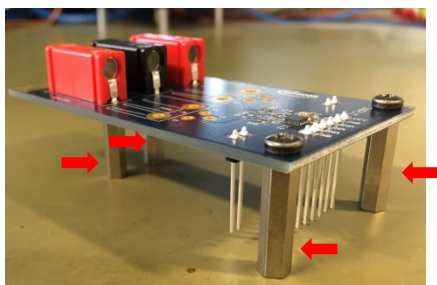
# Steps for kit assembly

## The following components need to be added to the kit:

- > Distance bolts
- > Source resistors
- > Sink resistors
- > Sink diodes
- > TO-220 sockets
- > TO-220 MOSFETS

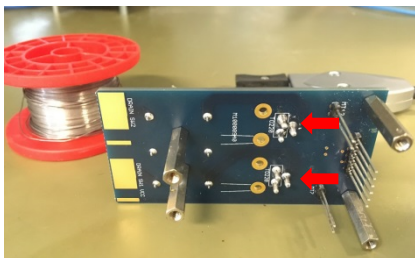
### Step 1

#### Distance bolts mounting



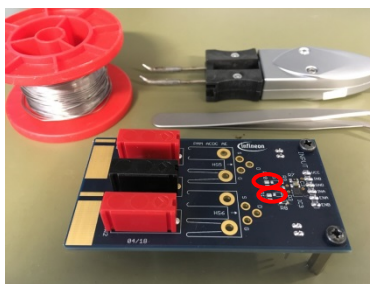
### Step 4

#### TO-220 sockets soldering



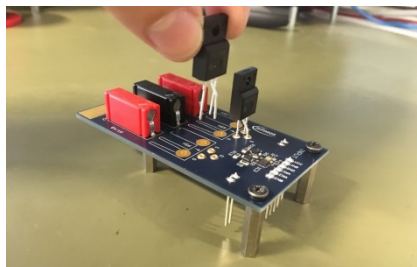
### Step 2

#### Source resistor soldering



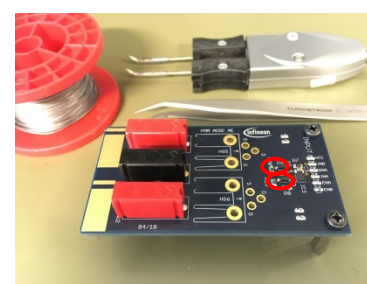
### Step 5

#### MOSFETs placement into the sockets



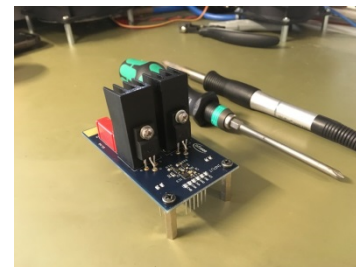
### Step 3

#### Sink resistors and sink diodes soldering



### Step 6

#### Heatsink mounting



- > For detailed information on how to fully assemble the kit, download the [Quick Start Guide here](#)

# Cross reference

| Sales_product_name   | Gate Driver             | Channel | Isolation               | Package             |
|----------------------|-------------------------|---------|-------------------------|---------------------|
| KIT_DRIVER_1EDN7511B | 1EDN7511B               | 1       | Non-isolated            | SOT-23 6pin         |
| KIT_DRIVER_1EDN7512B | 1EDN7512B               | 1       | Non-isolated            | SOT-23 5pin         |
| KIT_DRIVER_1EDN7512G | 1EDN7512G               | 1       | Non-isolated            | WSO6 6pin           |
| KIT_DRIVER_1EDN7550B | 1EDN7550B<br>/1EDN8550B | 1       | Non-isolated            | SOT-23 6pin         |
| KIT_DRIVER_2EDN7524F | 2EDN7524F               | 2       | Non-isolated            | DSO 8pin            |
| KIT_DRIVER_2EDN7524R | 2EDN7524R               | 2       | Non-isolated            | TSSOP 8pin          |
| KIT_DRIVER_2EDN7524G | 2EDN7524G               | 2       | Non-isolated            | WSO6 8pin           |
| KIT_DRIVER_2EDF7275F | 2EDF7275F               | 2       | Functional<br>isolation | NB-DSO-16<br>150mil |
| KIT_DRIVER_2EDS8265H | 2EDS8265H               | 2       | Reinforced<br>isolaton  | WB-DSO-16<br>300mil |



## Technical Material

- > Application Notes
- > Simulation Models
- > Datasheets
- > PCB Design Data

> [www.infineon.com/kit-driver-2edn7524g](http://www.infineon.com/kit-driver-2edn7524g)

## Evaluation Boards

- > Evaluation Boards
- > Demoboards
- > Reference Designs

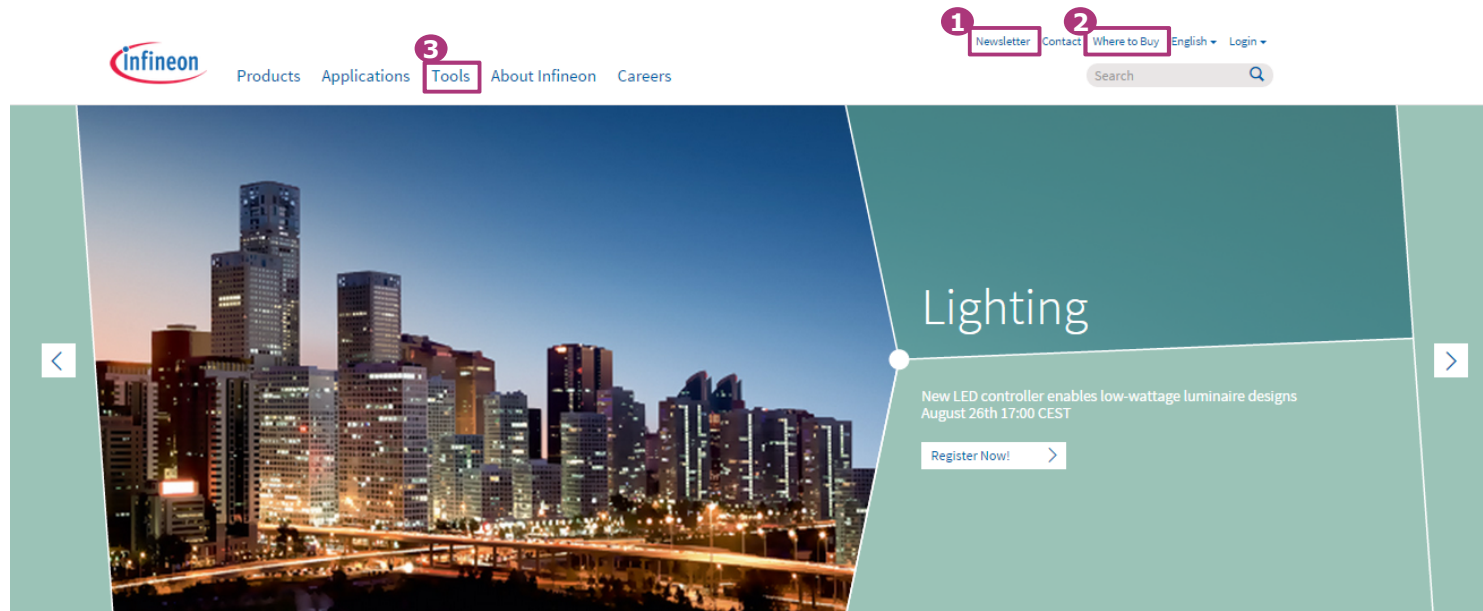
> [www.infineon.com/evaluationboards](http://www.infineon.com/evaluationboards)

## Videos

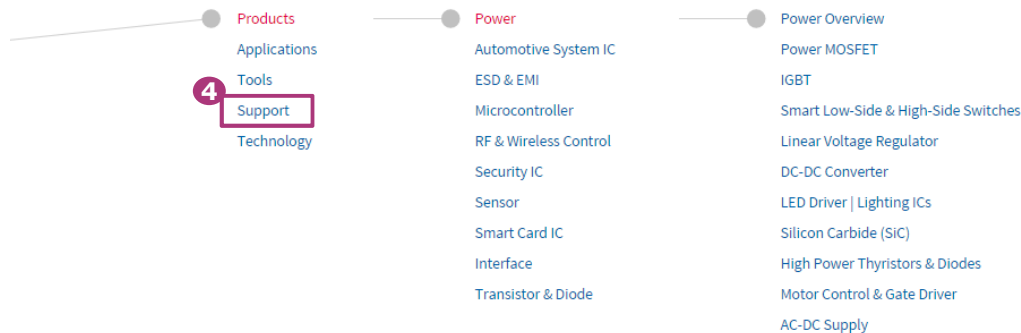
- > Technical Videos
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