Evaluation kit for EiceDRIVER™ 2EDS8265H dual-channel isolated gate driver IC
KIT_DRIVER_2EDS8265H

Vincent Chi Zhang (IFAT PMM ACDC AE)
Menditti Matrisciano Carmen (IFAT PMM ACDC AE)
Florian Zechner (IFAT PMM ACDC AE)
General description

Introduction

This evaluation kit provides a test platform for Infineon’s dual-channel isolated gate driver IC EiceDRIVER™ 2EDS8265H in WB-DSO16 package.

The complete driving circuitry is integrated into the board to allow a simple and practical step-by-step discovery of the 2EDS8265H characteristics 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 or high-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 2EDS8265H. 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 2EDS8265H 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 2EDS8265H 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 2EDS8265H
› Easy to replace and test different power MOSFETs in TO-220 package
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 2: Source resistor soldering
Step 3: Sink resistors and sink diodes soldering
Step 4: TO-220 sockets soldering
Step 5: MOSFETs placement into the sockets
Step 6: Heatsink mounting
Step 7: Select the SLDO_MODE jumper
Step 8: Select the BS_EN jumper

For detailed information on how to fully assemble the kit, download the Quick Start Guide here.
## Cross reference

<table>
<thead>
<tr>
<th>Sales_product_name</th>
<th>Gate Driver</th>
<th>Channel</th>
<th>Isolation</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIT_DRIVER_1EDN7511B</td>
<td>1EDN7511B</td>
<td>1</td>
<td>Non-isolated</td>
<td>SOT-23 6pin</td>
</tr>
<tr>
<td>KIT_DRIVER_1EDN7512B</td>
<td>1EDN7512B</td>
<td>1</td>
<td>Non-isolated</td>
<td>SOT-23 5pin</td>
</tr>
<tr>
<td>KIT_DRIVER_1EDN7512G</td>
<td>1EDN7512G</td>
<td>1</td>
<td>Non-isolated</td>
<td>WSON 6pin</td>
</tr>
<tr>
<td>KIT_DRIVER_1EDN7550B</td>
<td>1EDN7550B/1EDN8550B</td>
<td>1</td>
<td>Non-isolated</td>
<td>SOT-23 6pin</td>
</tr>
<tr>
<td>KIT_DRIVER_2EDN7524F</td>
<td>2EDN7524F</td>
<td>2</td>
<td>Non-isolated</td>
<td>DSO 8pin</td>
</tr>
<tr>
<td>KIT_DRIVER_2EDN7524R</td>
<td>2EDN7524R</td>
<td>2</td>
<td>Non-isolated</td>
<td>TSSOP 8pin</td>
</tr>
<tr>
<td>KIT_DRIVER_2EDN7524G</td>
<td>2EDN7524G</td>
<td>2</td>
<td>Non-isolated</td>
<td>WSON 8pin</td>
</tr>
<tr>
<td>KIT_DRIVER_2EDF7275F</td>
<td>2EDF7275F</td>
<td>2</td>
<td>Functional isolation</td>
<td>NB-DSO-16 150mil</td>
</tr>
<tr>
<td>KIT_DRIVER_2EDS8265H</td>
<td>2EDS8265H</td>
<td>2</td>
<td>Reinforced isolation</td>
<td>WB-DSO-16 300mil</td>
</tr>
</tbody>
</table>
## Support

### Technical Material
- Application Notes
- Simulation Models
- Datasheets
- PCB Design Data

### Evaluation Boards
- Evaluation Boards
- Demoboards
- Reference Designs

### Videos
- Technical Videos
- Product Information Videos

### Additional Resources
- [www.infineon.com/kit-driver-2eds8265h](http://www.infineon.com/kit-driver-2eds8265h)
- [www.infineon.com/evaluationboards](http://www.infineon.com/evaluationboards)
- [www.infineon.com/mediacenter](http://www.infineon.com/mediacenter)
Part of your life. Part of tomorrow.