

Expert kit

KIT_2K5W_CCM_TOLL

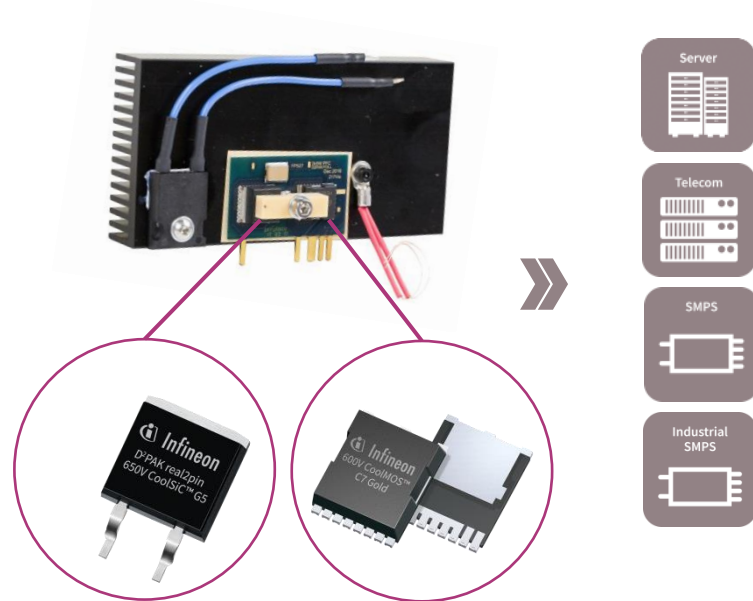
To be used with

[EVAL_2K5W_CCM_4P_V2](#)



Expert kit

KIT_2K5W_CCM_TOLL



Technical & order details

To be used together with:
[EVAL_2K5W_CCM_4P_V2](#)

Parameter	Value
Input voltage	85 V _{AC} ~ 265 V _{AC}
Input current	<14 A _{eff}
Output Voltage & current	400 V _{DC} , 6.25 A
Output power	2.5k W@V _{in} =230 V;
Peak efficiency	>98% @ 230 V _{AC}

Learn more

Sales name	KIT_2K5W_CCM_TOLL
SAP Mat number	SP001690906
Infineon order code	KIT2K5WCCMTOLLTOBO1

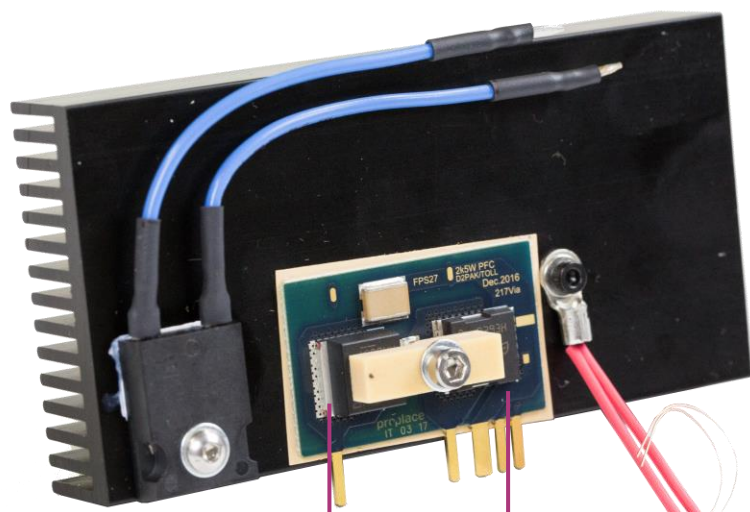
Features

- › Convenient SMD upgrade kit for the [EVAL_2K5W_CCM_4P_V2](#) PFC evaluation board
- › Modifies the PFC stage to SMD solution by just replacing the heatsink with it's already assembled devices
- › Topology: CCM PFC
- › Assembled on heat sink for plug and play

Benefits

- › Easy to use SMD solution
- › Thermal management example
- › SMD vs. THD comparison in same environment
- › Plug and play module for CCM PFC

Expert kit KIT_2K5W_CCM_TOLL



600 V CoolMOS™ G7
([IPT60R028G7](#))

CoolSiC™ Schottky diode 650 V G5
([IDK12G65C5](#))

Ordering code:
KIT_2K5W_CCM_TOLL

**Expert kit with 600 V CoolMOS™ G7 for
EVAL_2.5KW_CCM_4PIN**

Board components

- › 600 V CoolMOS™ G7 SJ MOSFET
([IPT60R028G7](#))
- › CoolSiC™ Schottky diode 650 V G5
([IDK12G65C5](#))

To be used with the following board

- › [EVAL_2K5W_CCM_4P_V2](#)

Target applications

- › Telecom
- › Server
- › Industrial
- › General SMPS

Component features

IPT60R028G7

CoolMOS™ C7 Gold SJ MOSFET in TO-Leadless (G7) - a new SMD package using Kelvin source concept

The 600 V CoolMOS™ C7 Gold (G7) SJ MOSFET technology for the first time brings together the benefits of the improved 600 V CoolMOS™ G7 technology, 4pin Kelvin source capability and the improved thermal properties of the TO-Leadless package. This enables now SMD solution for high current hard switching topologies such as power factor correction (PFC) up to 3 kW.

The 600 V CoolMOS™ G7 further more offers new SMD design solutions also for resonant circuits such as high end LLC topologies.

IDK12G65C5

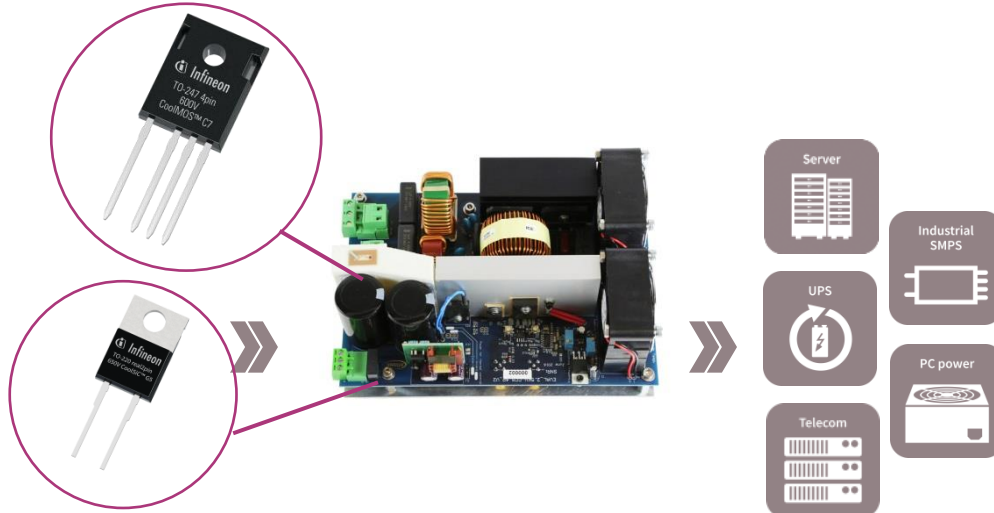
CoolSiC™ Schottky diode 650 V G5

CoolSiC™ generation 5 represents Infineon's leading edge technology for SiC Schottky barrier diodes. The Infineon proprietary diffusion soldering process, already introduced with G3, is now combined with a new, more compact design and thin wafer technology. The result is a new family of products showing improved efficiency over all load conditions, coming from both the improved thermal characteristics and a lower figure of merit ($Q_c \times V_f$). Benchmark switching behaviour.

- > No reverse recovery charge
- > Smooth recovery curve
- > Temperature independent switching behaviour
- > High operating temperature ($T_j \text{ max} = 175^\circ\text{C}$)

To be used with evaluation board EVAL_2K5W_CCM_4P_V2

EVAL_2K5W_CCM_4P_V2



Technical & order details

Parameter	Value
Input voltage	85 V _{AC} ~ 265V _{AC}
Output voltage	400 V
Output power	2.5k W @ V _{in} = 230 V _{AC} 1kW @ V _{in} = 90 V _{AC}
Peak Efficiency	>98%

Learn more

Sales name	EVAL_2K5W_CCM_4P_V2
SAP Mat number	SP001712686
Infineon Order Code	EVAL2K5WCCM4PV2TOBO1

Features

- › The board is developed for the laboratory use
- › This evaluation board helps customers to get familiar with Infineon products and to evaluate different behaviour of conventional 3pin devices compared to the high performance CoolMOS™ C7 devices in TO-247 4pin within a PFC application
- › The version V2 also enables the evaluation of the SMD TOLL adaptor kit [KIT_2K5W_CCM_TOLL](#)
- › Variable switching frequency: 40-200 kHz

Benefits

- › Able to analyse the switching performance of different package variants in a very common used PFC topology. It helps to understand the switching behaviour and parasitic influences
- › With the various option settings via "solder jumper" it is possible to modify the circuit without changing any layout
- › Therefore the evaluation board offers plenty investigation variants
- › It shows how to boost the efficiency in a standard PFC topology

Following expert kits are available

- › [KIT_2K5W_CCM_TOLL](#) Easy to use SMD solution
- › [KIT_6W_12V_BIAS_ICE3](#) DC-DC Bias board
- › [KIT_6W_12V_BIAS_ICE5](#) DC-DC Bias board



Technical Material

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

- > [KIT_2K5W_CCM_TOLL - Infineon Technologies](#)
- > [EVAL_2K5W_CCM_4P_V2 - Infineon Technologies](#)

Evaluation Boards

- > Evaluation Boards
- > Demoboards
- > Reference Designs

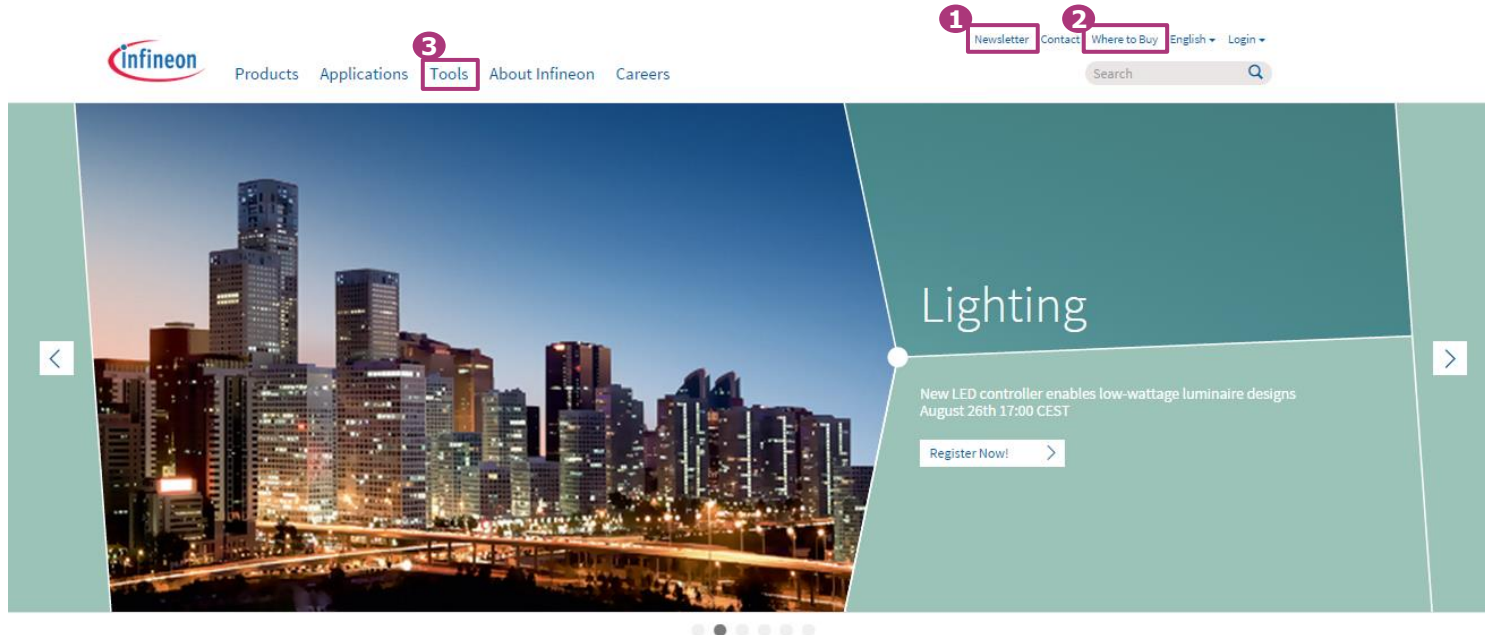
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