

# EVAL-2QR0665G-28W16V

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## Description:

28W 16V Evaluation Board with Quasi-Resonant CoolSET™ ICE2QR0665G

28W switching mode power supply evaluation board designed in a quasi resonant flyback converter topology using **ICE2QR0665G** Quasi-resonant CoolSET™. With the CoolMOS™ integrated in this IC, it greatly simplifies the design and layout of the PCB. Due to valley switching, the turn on voltage is reduced and this offers higher conversion efficiency comparing to fixed frequency hard-switching flyback converter. With the DCM mode control, the reverse recovery problem of secondary rectify diode is relieved. And for its natural frequency jittering with line voltage, the EMI performance is better. Infineon's digital frequency reduction technology enables a quasi-resonant operation till very low load. As a result, the system efficiency over the entire load range is significantly improved compared to conventional free running quasi resonant converter which implements with only maximum switching frequency limitation at light load. In addition, numerous adjustable protection functions have been implemented in ICE2QR0665G to protect the system and customize the IC for the chosen application. In case of failure modes, like open control-loop/over load, output overvoltage, and transformer short winding, the device switches into Auto Restart Mode or Latch-off Mode. By means of the cycle-by-cycle peak current limitation plus foldback point correction, the dimension of the transformer and current rating of the secondary diode can both be optimized. Thus, a cost effective solution can be easily achieved.



## Summary of Features:

- 650V avalanche rugged CoolMOS™ with built in depletion startup cell
- Quasi-resonant operation
- Digital frequency reduction with decreasing load
- Cycle-by-cycle peak current limitation with foldback point correction
- Built-in digital soft-start
- Direct current sensing with internal Leading Edge Blanking Time
- VCC under voltage protection: IC stop operation, recover with softstart
- VCC over voltage protection: IC stop operation, recover with softstart
- Openloop/Overload protection: Auto Restart
- Output overvoltage protection: Latch-off with adjustable threshold
- Short-winding protection: Latch-off
- Over temperature protection: Autorestart

## Target Applications:

set-top box, portable game controller, DVD player, netbook adapter and auxiliary power supply for LCD TV, etc.

## Parametrics

Parametrics	EVAL-2QR0665G-28W16V
Configuration	ICE2QR0665G
Family	CoolSET™
Input Type	AC
Output Current	1.75 A
Output Voltage	16.0 V
P <sub>out</sub>	28.0 W
Product Description	QR CoolSET™ ICE2QR0665G for 28W 16V SMPS evaluation board with 85~265V AC universal input
Qualification	Industrial
Supply Voltage <b>min max</b>	85.0 V 265.0 V
Target Application	Power Supplies
Topology	Flyback
Type	Demo Board

## Documents

[+ Expand all](#)

[+ Product Brief](#)

[+ Application Brochure](#)

## Order

Sales Product Name	EVAL-2QR0665G-28W16V
<b>OPN</b>	EVAL2QR0665G28W16VTOBO1
<b>Product Status</b>	active and preferred
<b>Package name</b>	--
<b>Order online</b>	
<b>Completely lead free</b>	
<b>Halogen free</b>	
<b>RoHS compliant</b>	no
<b>Packing Size</b>	1
<b>Packing Type</b>	CONTAINER

<b>Sales Product Name</b>	<b>EVAL-2QR0665G-28W16V</b>
<b>Moisture Level</b>	
<b>Moisture Packing</b>	NON DRY


## Boards

Board	Family	Description	Status
ICE2QR0665G	CoolSET™		active and preferred

## + Reference Design

## Support

Live Chat Online  
在线支持



Technical Assistance Center  
技术支持中心 (TAC)



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First Name\*

Last Name\*

E-Mail\*

Phone

Company\*

Company website (URL)

Industry\*

Other Industry

Country\*

Preferred Distributor / Reseller\*

Other Distributor / Reseller

Product Name\*

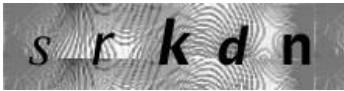
Estimated annual production volume (pieces) per year\*

Please post your technical question as detailed as possible\*

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









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Microcontroller

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