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# ICE5QR2270AZ

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## Description:

Infineon latest 5<sup>th</sup> generation quasi-resonant CoolSET™ offers high performance with the integration of latest P7 Generation of 700V and 800V CoolMOS™ in DIP-7 package.

## Summary of Features:

- Novel quasi-resonant switching scheme
- Rapid and adjustable start-up with cascode configuration
- 2 level selectable active burst mode level
- Built-in digital soft-start
- Cycle by cycle peak current limitation
- Digital frequency reduction with decreasing load for higher efficiency

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- Adjustable line input over-voltage and brown IN/OUT protection
- VCC and CS pin short to ground protection
- OLP, output short, output over-voltage, OTP with hysteresis and VCC over/under voltage protection
- Auto-restart for all protection features

**Benefits:**

- High efficiency with latest CoolMOS™ P7 family and quasi-resonant switching scheme
- Auto-restart recovery scheme to minimize interruption to system operation
- Extensive protection coverage to increase system robustness
- Rapid start-up performance with cascode configuration

**Target Applications:**

- Offline aux SMPS for server, PC power, aircon, refrigerator and audio
- Offline main SMPS for adapter, set-top-box, water purifier, TV, industrial SMPS and POE

Add To Cart

**ICE5QR2270AZ**

Data Sheet (3 MB, EN)





## Solution Finder

- MOSFET
- IGBT
- Vreg
- MCU
- More

Voltage  $I_D$  (max)  $\geq$   A $R_{DS(on)}$  (max)  $<$   m $\Omega$ [Reset](#)

Parametric	ICE5QR2270AZ
$V_{DS}$ max	700.0V
$R_{DS(on)}$ max	2.33 $\Omega$
$P_{out}$ max	22.0W
$V_{CC}$ min max	10.5V 24.0V

<b>Parametric</b>	<b>ICE5QR2270AZ</b>
Topology	Flyback
Operating Temperature <b>min max</b>	-40.0°C 129.0°C
$t_f$	30.0ns
$I_{CC}$	0.9mA
Frequency Range	Variable
ESD Protection <b>max</b>	2.0kV
Mounting	THT
Green Product	Yes
Package	PG-DIP-7
$t_r$	30.0ns
Switching Frequency	Variable

## Data Sheet

Title	Size	Date	Version
<a href="#">Infineon-ICE5QRxxxxAx-DS-v01_20-EN &gt; EN</a>	3 MB	04 Jul 2017	02_00

## Application Notes

Title	Size	Date	Version
<a href="#">Demoboard DEMO_5QR2270AZ_24W1 with ICE5QR2270AZ &gt; EN</a>	3.4 MB	08 Jun 2017	01_00

## Product Brief

Title	Size	Date	Version
<a href="#">Product Brief Quasi Resonant CoolSET™ Generation 5 PWM controller &gt; EN</a>	121 KB	13 Mar 2017	01_00

## Additional Technical Information

Title	Size	Date	Version
Design Guide Quasi Resonant CoolSET™ Generation 5 <b>NEW</b> > EN	2.2 MB	05 Apr 2017	01_00

## Additional Product Information

Title	Size	Date	Version
Market News OptiMOS™ Linear FET > DE	124 KB	25 Jul 2017	01_00

## Application Brochure

Title	Size	Date	Version
Application Brochure Wireless Charging for Consumer <b>NEW</b> > EN	575 KB	09 May 2017	01_00

## Product Selection Guide

Title	Size	Date	Version
Power Management Selection Guide 2017 > EN > JA	22.2 MB	21 Feb 2017	00_00

<b>Sales Product Name</b>	ICE5QR2270AZ
<b>OPN</b>	ICE5QR2270AZXKLA1
<b>Product Status</b>	active and preferred
<b>Order online</b>	<a href="#">Add To Cart</a>
<b>Package Name</b>	PG-DIP-7
<b>Completely lead free</b>	yes
<b>Halogen free</b>	yes
<b>RoHS compliant</b>	yes

<b>Sales Product Name</b>	ICE5QR2270AZ
<b>Packing Size</b>	2000
<b>Packing Type</b>	TUBE
<b>Moisture Level</b>	NA

## Evaluation Boards

Board ▼▲	Family ▼▲	Description ▼▲	Status ▼▲
> DEMO_5QR2270AZ_24W1	Power Controller (PWM, PFC)	24W Dual Output +12V and +5V SMPS Quasi-Resonant demo board <ul style="list-style-type: none"> <li>ICE5QR2270AZ</li> </ul>	active and preferred

## Find an answer to your question

**Please state your question(with at least 3 words)**

### FAQ

1. ....

Infineon welcomes your comments and questions.

If you have any questions concerning our products, please fill out the following form. Your inquiry will be sent to the appropriate specialist who will be in touch with you as soon as possible.

You will receive a confirmation E-mail to validate your address in our system. Any attached file to the reply which will help to support your inquiry is highly appreciated.

First Name\*