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# REF\_5BR4780BZ\_15W1 NEW

### Overview

15W non-isolated flyback auxiliary power supply for residential outdoor aircon

The REF\_5BR4780BZ\_15W1 is an auxiliary power supply reference design configured in a flyback topology and is based on the

**ICE5BR4780BZ (/cms/en/product/power/ac-dc-power-conversion/ac-dc-integrated-power-stage-coolset/fixed-frequency-coolset/ice5br4780bz/)**

, a product of Infineon's

**5<sup>th</sup> generation fixed frequency CoolSET™ family (/cms/en/product/power/ac-dc-power-conversion/ac-dc-integrated-power-stage-coolset/fixed-frequency-coolset/)**

The power supply supports an input range up to 264 V<sub>AC</sub> with 15 V / 150 mA, 12 V / 800 mA and 5 V / 300 mA non-isolated output. Thanks to the integrated 800 V MOSFET, such a design enables the deployment to unstable grid environments and increases system robustness.

### Summary of Features

- Universal input 85~264 V<sub>AC</sub>
- Output #1: 15 V / 150 mA
- Output #2: 12 V / 800 mA
- Output #3: 5 / 300 mA



- > 75% full-load efficiency @ 230 V<sub>AC</sub>

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Benefits  
> Evaluation Boards (/cms/en/product/evaluation-boards/) > REF\_5BR4780BZ\_15W1

- Multi-output support for IPM gate driver, relay, MCU and miscellaneous biasing needs
- Ease of design and BOM reduction thanks to an integrated error amplifier
- Robust operation with an integrated 800 V MOSFET

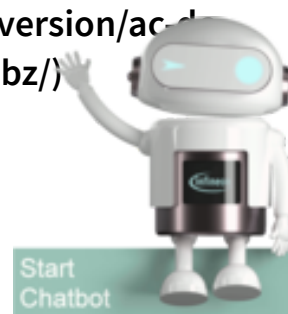
### Potential Applications

- Auxiliary power supplies for AC-DC
- Home appliances (/cms/en/applications/consumer/smart-home/home-appliances)
  - Residential aircon (/cms/en/applications/consumer/home-appliances/residential-aircon/)
- Motor control and drives (/cms/en/applications/solutions/motor-control-and-drives/)
- Industrial drives (/cms/en/applications/industrial/industrial-drives/)
  - Industrial heating and welding (/cms/en/applications/industrial/industrial-heating-and-welding/)

### List of components

- Fixed frequency AC-DC integrated power stage  
(  
CoolSET™ ICE5BR4780BZ (/cms/en/product/power/ac-dc-power-conversion/ac-dc-integrated-power-stage-coolset/fixed-frequency-coolset/ice5br4780bz/))

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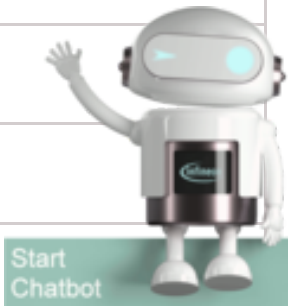


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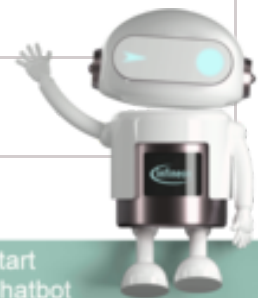


Parametrics

Parametrics	REF_5BR4780BZ_15W1
Board Type	Reference Board
Dimensions	80 (L) x 57 (W) x 26 (H) mm
Family	CoolSET™
I <sub>out</sub> min max	0.1 A 0.005 A 0.15 A



<b>Parametrics</b>	<b>REF_5BR4780BZ_15W1</b>
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Input Voltage min max	230 V 85 V 264 V
Output Current	0.8 A ; 0.3 A ; 0.15 A
Output Voltage min max	15 V 14.85 V 15.75 V
P <sub>out</sub> max	15 W
Product Description	15W non-isolated flyback auxiliary power supply with triple output (15V/0.15A, 12V/0.8A and 5V/0.3A) for home appliances
Product Name	REF_5BR4780BZ_15W1
Qualification	Industrial
Target Application	Power Supplies ; Industrial ; Consumer ; Home appliances ; SMPS
Topology	Flyback
Type	integrated



## Documents

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