Silanna Semiconductor Announces High-Efficiency DC/DC Converter Evaluation Board for 100 W Fast Charger Designs

EVB speeds development of ultra-high-power-density USB-PD and QC charging designs

SZDL3105BB-EVB02

SAN DIEGO, CALIFORNIA, USA, August 10, 2023 /EINPresswire.com/ -- Silanna Semiconductor, the Power Density Leader, has announced an evaluation board that will help engineers to quickly build and test 100 W end-to-end fast charger applications built around the company's CO2 Smart Power™ family of wide-voltage, high-frequency point of load converters.

The SZDL3105BB-EVB02 buck converter design example is configured for a 5 V to 20V at5 A output and integrates all necessary connections to properly test and evaluate the efficiency and other performance metrics of the Silanna SZDL3105B fully-integrated DC/DC converter. A range of compatible daughter boards ensures rapid configuration of a variety of USB-PD and QC charging use cases.

> "OEMs are looking to develop the smallest, lightest, high-power USB-PD and QC fast chargers within tight time-to-market deadlines."
>
> *hsan Zaman, Silanna Semiconductor's Director of Product Marketing*

The SZDL3105BB-EVB02, which is pre-configured for operation with inputs from 7.5 V to 24 V, may be evaluated as a general-purpose point of load (POL) application or in-circuit with a USB port controller. Available daughterboards feature Weltrend WT6633P (Qualcomm QC2/3/4, USB-PD), Power Integrations CHY103 (Qualcomm QC3) and Cypress CYPD3175 (Qualcomm QC4, USB-PD) controllers.

"OEMs are looking to develop the smallest, lightest, high-power USB-PD and QC fast chargers within tight time-to-market deadlines," says Ahsan Zaman, Silanna Semiconductor's director of

product marketing. “By speed the evaluation of our industry-leading buck converters in a variety of different scenarios this evaluation board and the associated daughter boards help to reduce the time from design and prototyping to final production.”

Operating at a switching speed of 667 kHz, the SZDL3105B DC/DC converter measures just 4 mm x 4mm yet delivers up to 5 A and 100 W. The device accommodates inputs up to 27 VDC and features an extremely low operating power dissipation that enables the very low no-load power that is an important specification for regulatory certification. Internal and external feedback resistor divider flexibility supports custom design, while a momentary internal feedback path allows for clean and well-controlled start-up operation until external USB port controllers can bias themselves and smoothly take over control of the output voltage.

SZDL3105BB-EVB02 Features
- Programmable switching frequency up to 2 MHz
- 95% Peak Efficiency as shipped
- 5 A output with overcurrent protection
- Wide input voltage from 7.5 V to 24 V
- UVLO/OCP/OVP/OTP protections
- All-ceramic output capacitor solution
- Adaptive COT architecture for fast load transient response
- Internal LDO for MOSFET driver bias
- Pre-bias startup with programmable soft start time
- Diode emulation mode for light load efficiency boost
- Ultra-compact 4 mm x 4 mm QFN package

Applications
- USB-PD, QC2/3/4 DC/DC Converters

Availability:
Information is available at https://powerdensity.com/reference-design/ or by contacting sales@silanna.com.

About Silanna Semiconductor

The Power Density Leader. Delivering on the ultimate Power Management challenge of best-in-class power density and efficiency performance that delights customers with unprecedented BoM savings. Silanna Semiconductor’s AC/DC and DC/DC power converter ICs are driving key innovations in Travel Adapters, Laptop Adapters, Appliance Power, Smart Metering, Computing, Lighting, Industrial Power, and Display Power utilizing the latest digital and analog control and device technologies. In addition to our global engineering sales force, customers are supported by regional design centers and online tools. ‘Power Density Hero’ is an online design tool where customers input their power needs and instantly receive a complete design, schematic, and ‘Bill of Materials’ (BOM). The Asian Center of Excellence (ACE) has a dedicated team of power system

engineers to support our customers in their application specific design needs.

Silanna Semiconductor, with its family of CO2 Smart Power™ ICs, offers technologies that will benefit the planet and the people on it by delivering best-in-class power density and efficiency.

Silanna Semiconductor, headquartered in San Diego, CA, is a privately-held semiconductor company, and has global facilities supporting customers with design centers and offices in North America, Europe, Asia, and Australia.

# # #

PR Contact: Grand Bridges Marketing Limited, team@grandbridges.com, +1 415 800 4529

Graham Robertson
team@grandbridges.com
Silanna Semiconductor

This press release can be viewed online at: https://www.einpresswire.com/article/649029746

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.
© 1995-2023 Newsmatics Inc. All Right Reserved.