

# **USB Type-C Twin Charger Module**

#### **Our USPs**

- > Small, robust design according to OEM requirements
- Very good efficiency with high operating temperature range up to max. +85 °C
- Functionality according to USB Type-C Specification with 2x 5 V / 3 A
- Additional power supply possible via V<sub>conn</sub> (max. 200 mA)



### **Your Advantages**

- > Module according to common automotive standards
- Full functionality (2x 5 V / 3 A) up to an ambient temperature of +60 °C
- > Up to +85 °C charging performance with 2x 5 V / 2.4 A
- 2-stage overheating protection (power reduction, safety shutdown)
- Heat protection for surrounding parts due to special housing
- > Integrated short-circuit and overvoltage protection

#### **Technical Information**

## Electrical (information per channel)

Input supply voltage  $V_{bus-in}$  9,0 V – 18,0 V

Output voltage  $V_{bus}$  4.75 V – 5.5 V over entire load

and temperature range

 $\begin{array}{lll} \text{Output current V}_{\text{bus}} & \text{max. 3,0 A} \\ \text{Output power V}_{\text{bus}} & \text{max. 15 W} \end{array}$ 

Output power V<sub>conn</sub> max. 1 W

#### Mechanical

Dimensions I x w x h 44.1 mm x 50 mm x 39.3 mm

#### **Environmental**

Operating temperature range -40 °C up to +85 °C

Tested according to LV 124

## **Requirements & Applications**

Charging module according to automotive quality standards with two USB Type-C female connectors working in parallel, combined with an illuminated customer interface in the visible area

## **Protocols & Signals**

- Charging currents according to USB Type-C Standard
- Additional charging profiles
  - Legacy charging profiles BC1.2 DCP
  - > Apple charging profile (2.4 A)
  - > 1.2 V Divider Mode
  - > USB Type-C charging (5 V x 3 A)



## **MD** in a Nutshell



The C.A.S.E. megatrend describes the four essential future topics for the automotive industry: Connected, Autonomous, Shared & Service and Electric. Data plays a central role and drives the future of the automotive industry. Data is generated, transferred, merged and evaluated. We are experts in the transmission of the rapidly increasing data volumes and have developed the latest technological solutions for this future topic.

25

years experience in the automotive industry

**100 %** 

automotive



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Accredited in-house test laboratory