

Product brief

CCG7D

Two-port USB-C PD + DC-DC Controller

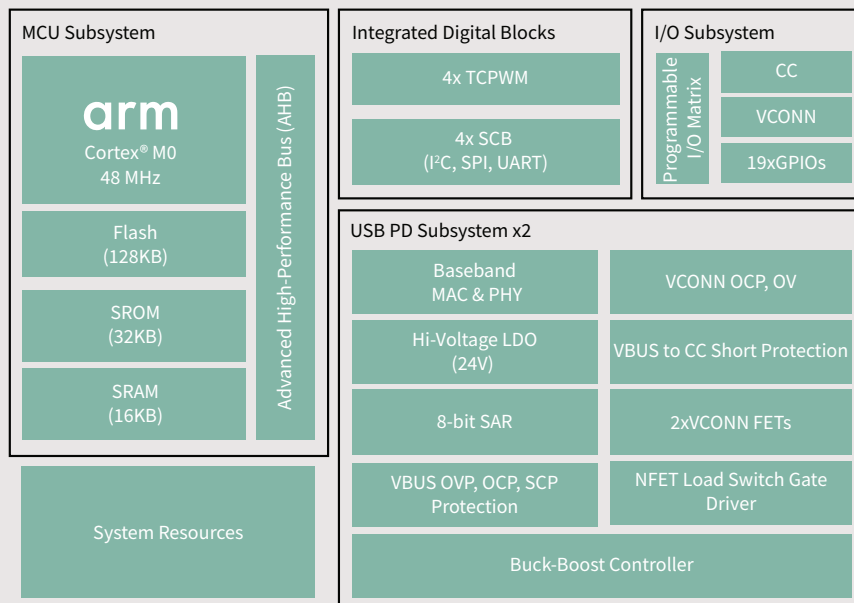
Overview

CCG7D is a highly integrated dual-port USB Type-C Power Delivery (PD) + Buck-Boost controller. It complies to the latest USB Type-C and PD specifications and is targeted for multi-port consumer charging applications. CCG7D integrates VBUS NFET gate drivers, Buck-Boost NFET gate drivers, VCONN FETs, High Side Current Sense Amplifier (HSCSA) and supports a wide input voltage range (4-24V, 40V Tolerance)

Key features

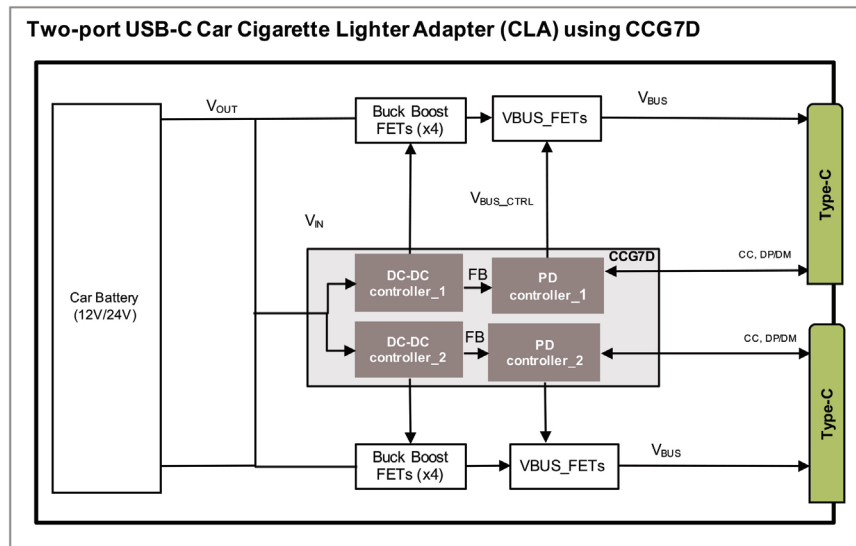
- › Integrates 2 USB-C PD Controllers + 2 DC-DC controllers in one single chip
- › Charging Protocols: Supports latest USB-C PD v3.0 with PPS, QC4+, QC4.0, Samsung AFC, Apple 2.4A, BCv1.2
- › DC-DC Controller: Configurable switching frequency of 150kHz-600kHz, wide input voltage range of 4-24V (40V tolerant) and programmable spread spectrum frequency for low EMI
- › Arm® Cortex®-M0 with Flash allows users to implement custom features
- › Integrates VBUS NFET Gate Drivers, Buck-Boost NFET gate drivers, VCONN FETs and High Side Current Sense Amplifier (HSCSA)
- › Protection Features: OVP, UVP, SCP, OCP, OTP and VBUS-CC
- › Advanced Features: Dynamic Load Sharing, Signed Field Firmware upgrade and Optimised Buck input voltage for higher efficiency
- › Package: 68-pin QFN with wettable Flank (8mm x 8mm)

CCG7D: Dual Port USB Type-C PD and Buck-Boost Controller



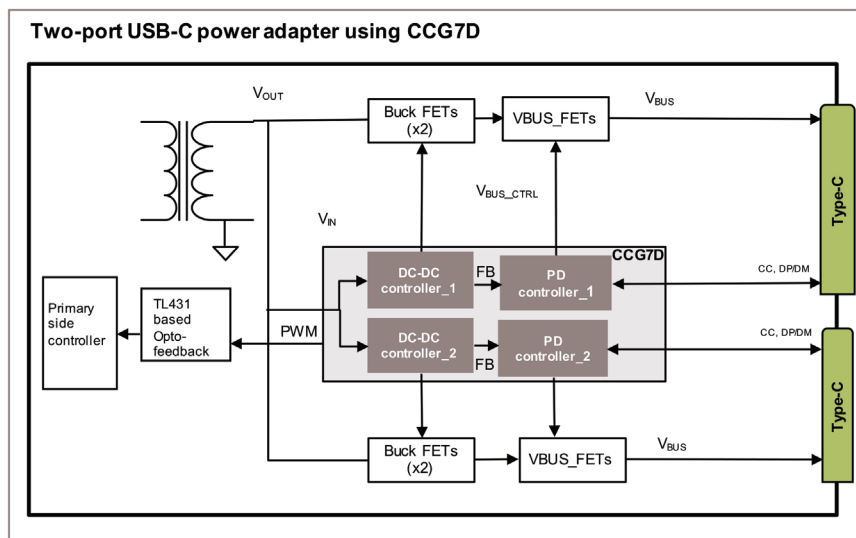
CCG7D

Two-port USB-C PD + DC-DC Controller



Value

- › Enables high power density designs by integrating 2 DC-DC controllers + 2 USB-C PD controllers in one single chip
- › Dynamic load sharing enables intelligent redistribution of power between two ports
- › Optimised Buck Input Voltage using TL431 provides optimized efficiency for AC-DC designs
- › Supports USB-C PD3.0 with PPS and other legacy protocols including Apple 2.4A, Samsung AFC, QC4.0, BC1.2 at no additional BOM cost



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