

RD33771CDSTEVB: Evaluation Board for MC33771C BCC with Isolated Daisy Chain Communication

High performance Lithium ion battery management system

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Overview

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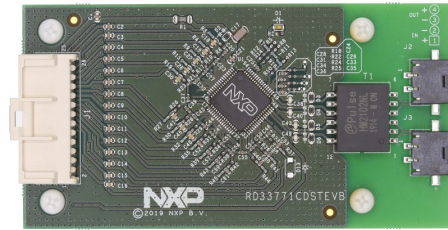
Overview

The RD33771CDSTEVB evaluation board (EVB) features the MC33771C, a 14-channel battery cell controller for automotive and industrial Li-ion battery applications. It supports cell voltage measurement, passive cell balancing and GPIOs.

The kit is designed to support customer development and evaluation. The device can be connected to NXP's 14-cell battery emulator or a customer Li-ion battery module with 7~14 logic cells in series. Up to 63 RD33771CDSTEVB can be connected within a daisy chain. The battery cell information is transferred to the microcontroller unit (MCU) through an isolated differential communication bus using the FRDMDUAL33664EVB.

Target Applications

[Battery Management System](#)



RD33771CDSTEVB Evaluation Board Iso2-web



RD33771CDSTEVB Evaluation Board bottom



High Voltage Battery Management System Featuring NXP's MC33771C



Specifications

Supported Devices

Power Management

- [MC33771C](#) : 14-Channel Li-ion Battery Cell Controller IC

Technical and Functional Specifications

Connectivity	<ul style="list-style-type: none">• TPL communication, daisy chainable• 26 pin connector for 14 cell battery connections and 4 temperature sensors
RGB LED	<ul style="list-style-type: none">• VCOM status
MC33771C	<ul style="list-style-type: none">• 14 cell voltage measurements• 100 mA cell balancing• 4 external temperature measurements• 3 onboard temperature sensors• Diagnostic functions



Desing Resources

Get Started

Get Started with the RD33771CDSTEVB

Getting Started Guide

This page will help guide you through the process of learning about your RD33771CDSTEVB board.

[Get Started with the RD33771CDSTEVB \(REV 1.0\)](#)

[HTML](#) | [PDF 12.2 MB](#)

GS-RD33771CDSTEVB [English]

DOCUMENTS (7)

- Data Sheet (1)
- Application Note (2)
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- Fact Sheet (1)
- Product Brief (1)

DESIGN RESOURCES (1)

- Design Tools & Files (1)

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Documents

Data Sheet (1)

[MC33771 Full Data Sheet \(NDA required\) \(REV 5.0\)](#)

Datasheet of 14-channel battery cell controller AFE IC

[PDF](#) 2kb 09 Jul 2018 DOCSTORE-MC33771-FDS [English]

Application Note (2)

[MC33771x/MC33772x Application Notes \(NDA required\) \(REV 1\)](#)

Application Notes for MC33771x/MC33772x

[PDF](#) 739kb 29 Jan 2020 DOCSTORE-RD33771CDSTEVB-AN [English]

[AN4388, Quad Flat Package \(QFP\) - Application Note \(REV 3.0\)](#)

This application note provides guidelines for the handling and board mounting of NXP's QFP packages including recommendations for printed-circuit board (PCB) design, board mounting and rework.

[PDF](#) 7.6 MB 09 Jan 2019 AN4388 [English , Chinese]

Users Guide (2)

