

# MAXREFDES182 Reference Design

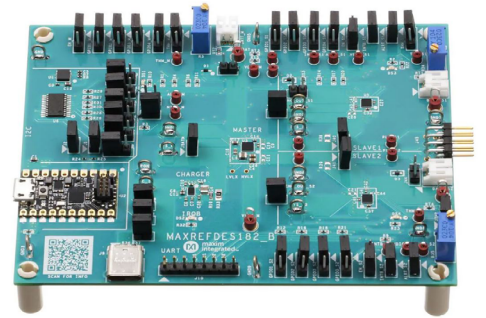
## Product Overview

12-8-2023

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## Description

Analog Devices MAXREFDES182 Reference Design is a fully assembled and tested surface-mount Printed Circuit Board (PCB) that demonstrates the integrated Power Line Communication (PLC) and charging system. The MAX20355 is the master IC in the charging case, and the MAX20357 is the slave IC in the earbud. This board comes with an integrated I<sup>2</sup>C interface, MS Windows® based Graphical User Interface (GUI) software, and a USB Micro-B cable. Typical applications include wearable devices, augmented reality glasses, and True Wireless Stereo (TWS) headphones.



## Features

- System solution for charging and data transfer over a single contact
- Insertion/removal detection
- Various PLC commands
- Autonomous charging with headroom control
- Mailbox data transfer
- Moisture detection

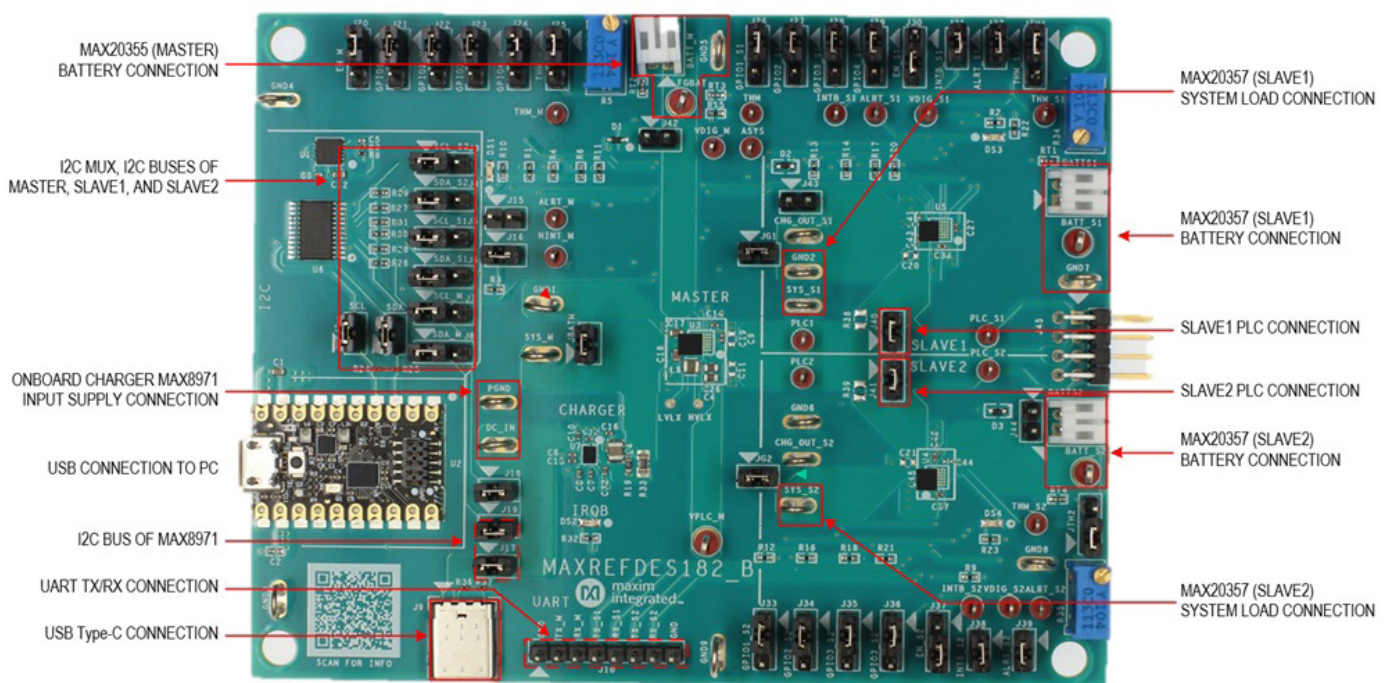
## Required Equipment

- MAXREFDES182 evaluation kit
- Adjustable DC power supply
- USB type-C cable (optional, used to power up from the MAX8971)
- 1-cell Li-ion battery with protection or battery simulator
- Oscilloscope
- Voltmeters and Ammeters
- USB Micro-B cable
- PC with Windows 7 or newer operating system and USB port

## Applications

- True Wireless Stereo (TWS) headphones
- Augmented reality glasses
- Wearable devices

## Overview



## Mouser Part Number

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