

Evaluates: MAX20478/MAX20479**MAX20479 Evaluation Kit****General Description**

The MAX20479 evaluation kit (EV kit) is a fully assembled and tested application circuit for the MAX20478/MAX20479: Two/three input automotive voltage monitor with watchdog. The EV kit is created with automotive grade components and can test all functionality of the IC including watchdog and redundant supply monitoring. Various test points and jumpers are included to allow for various functionalities of the IC to be tested.

Features

- Single Supply Operation with 2.35V to 5.5V Input Supply Range
- IN1-2 Voltage Monitor Channels Capable of Monitoring 0.5V to 3.6875V
- IN3 Voltage Monitor Channel Capable of Monitoring 0.5V to 5.6V
- OTP Controlled Voltage Monitoring with ECC
- Selectable 102.5% to 110% OV Monitors
- Selectable 97.5% to 90% UV Monitors
- 0.5% Step Size
- 0.8% Voltage Accuracy
- ASIL-D Compliance (MAX20478)
- ASIL-B Compliance (MAX20479)
- Programmable $\overline{\text{RESET1}}$ and $\overline{\text{RESET2}}$ Pins
- Jumpers and Test Points on Key Nodes for Simplified Evaluation
- -40°C to +125°C Automotive Temperature Range
- Automotive Grade External Components
- Proven PCB Layout
- Fully Assembled and Tested

Quick Start**Required Equipment**

- MAX20479 EV kit
- DC power supply (PS1)
- Digital multimeter (DMM) (Multiple can be needed according to OTP settings)
- Function generator (FUNGEN)

Procedure

The EV kit is fully assembled and tested. Use the following steps to verify board operation:

- 1) Verify that all jumpers are in their default positions as shown in [Table 1](#).
- 2) Connect the PS1 positive terminal to VDDA_B and PS1 negative terminal to GND1 on the EV kit.
- 3) Set DMM1 to measure VDC and connect probes to VIN1A_VIN1B and GND2 on the EV kit.
 - If MAX20478 is being used to monitor more than one voltage, attach DMM2 to VIN2A_VIN2B and/or DMM3 to VIN3B/VDDA.
- 4) Set FUNGEN to nominal setpoints as described in OTP settings and attach to VIN1A_VIN1B (and/or VIN2A_VIN2B and VIN3B/VDDA if in use).
- 5) Set PS1 to between 2.35V and 5.5V and enable supply output.
 - VDDAB_TP is available to probe PS1.
- 6) Verify that the DMMs measure the nominal setpoints as described by OTP settings.
- 7) Verify that the RESETx is not asserted using DMM or oscilloscope.
- 8) Confirm RESETx mapping by adjusting the FUNGEN applied voltage to trigger an OV/UV condition as defined by the OV/UV thresholds in OTP settings.
- 9) EV kit operation verification is complete.

[Ordering Information](#) appears at end of data sheet.

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