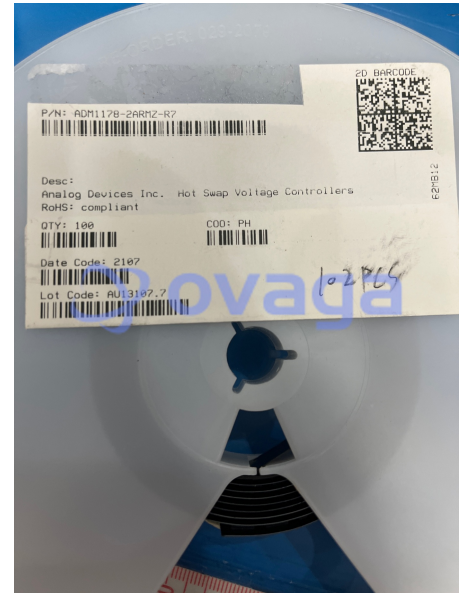


Hot Swap Controller 1-CH 16.5V N-Channel Positive Voltage 10-Pin MSOP T/R

Manufacturers	<u>Analog Devices, Inc</u>
Package/Case	MSOP-10
Product Type	Hot Swap Controllers ; Low Voltage Hot Swap Controllers
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ADM1178-2ARMZ-R7 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

An internal current sense amplifier measures voltage across the sense resistor in the power path via the VCC pin and the SENSE pin.

The ADM1178 limits the current through this resistor by controlling the gate voltage (via the GATE pin) of an external N-channel FET in the power path. The voltage across the sense resistor (and therefore the inrush current) is kept below a preset maximum.

The ADM1178 protects the external FET by limiting the time that the maximum current runs through it. This current limit period is set by the value of the capacitor attached to the TIMER pin. Additionally, the device provides protection from overcurrent events that may occur after the hot swap event is complete. In case of a short-circuit event, the current in the sense resistor exceeds an overcurrent trip threshold, and the FET is switched off immediately by pulling down the GATE pin.

A 12-bit ADC can measure the current seen in the sense resistor, as well as the supply voltage on the VCC pin. An alert output can be set to trigger when the ADC current reading exceeds a programmed overcurrent limit threshold.

An industry-standard I2C interface allows a controller to read current and voltage data from the ADC. Measurements can be initiated by an I2C command. Alternatively, the ADC can run continuously, and the user can read the latest conversion data whenever it is required. Up to four unique I2C addresses can be created, depending on how the ADR pin is connected.

The ADM1178 is packaged in a 10-lead MSOP.

## Features

Allows safe board insertion and removal from a live backplane

Controls supply voltages from 3.15 V to 16.5 V

Precision current sense amplifier

Precision voltage input

12-bit ADC for current and voltage readback

Charge-pumped gate drive for external N-channel FET

Adjustable analog current limit with circuit breaker

Please see data sheet for additional features.

## Application

Power monitoring/power budgeting

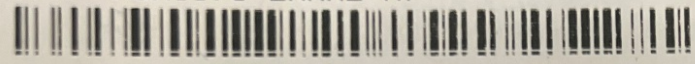
Central office equipment

Telecommunication and data communication equipment

PCs/servers

ORDER: 029-2072

P/N: ADM1178-2ARMZ-R7



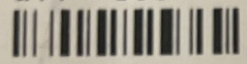
2D BARCODE



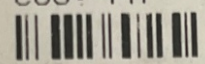
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Analog Devices Inc. Hot Swap Voltage Controllers  
RoHS: compliant

62MB12

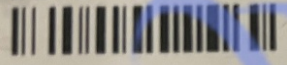
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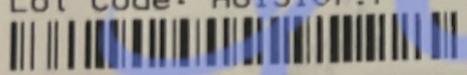
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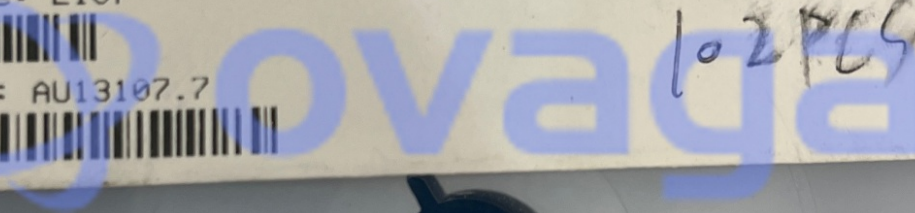
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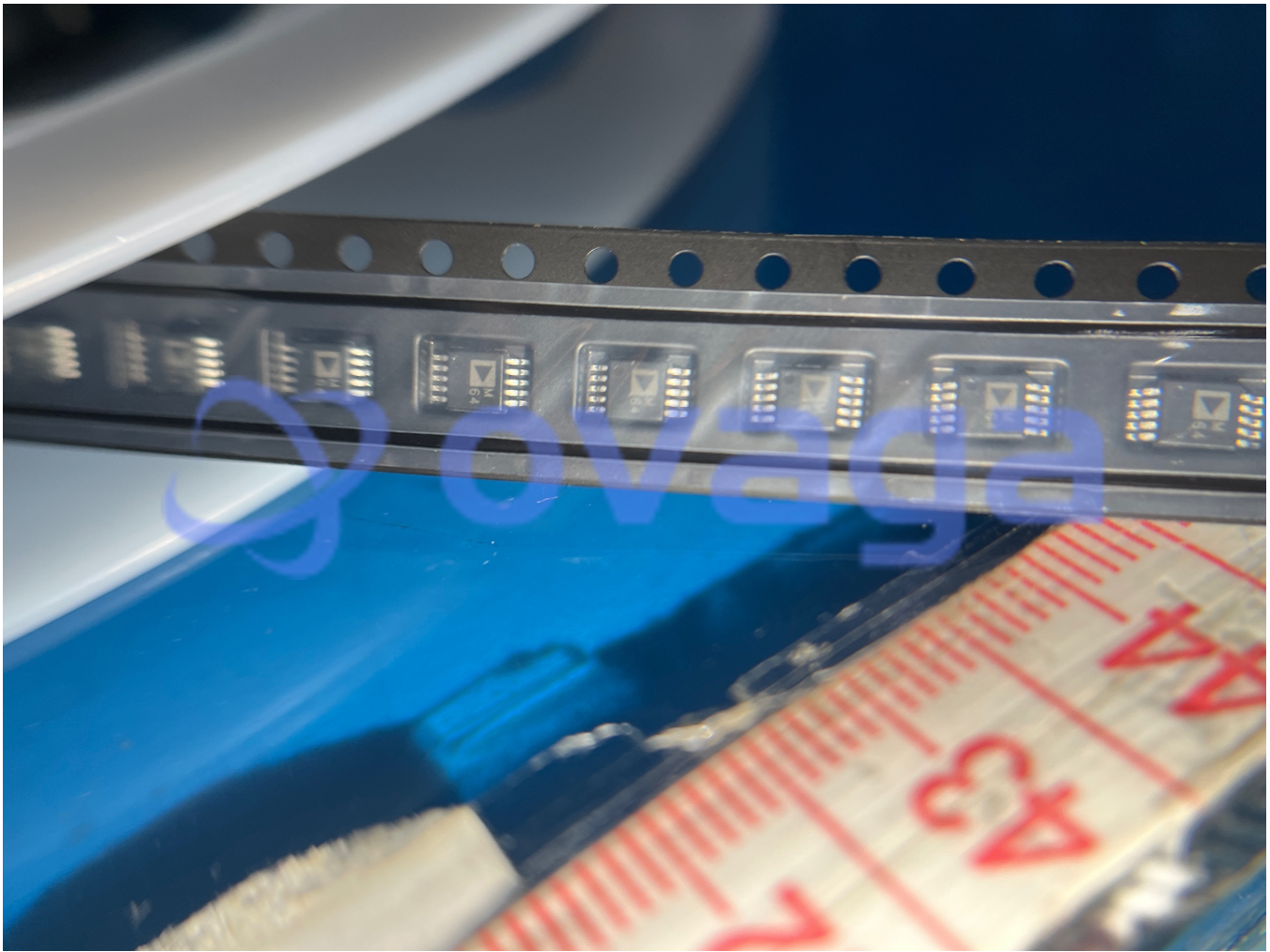
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102 PCS







## Related Products



### [ADP3336ARMZ-REEL7](#)

Analog Devices, Inc  
MSOP-8



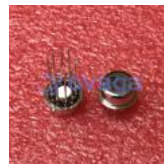
### [AD737JRZ](#)

Analog Devices, Inc  
SOP-8



### [ADP3367ARZ](#)

Analog Devices, Inc  
SOIC-8



### [AD636JH](#)

Analog Devices, Inc  
TO-100-10



### [ADP3330ARTZ3.3-RL7](#)

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### [ADR434BRZ](#)

Analog Devices, Inc  
SOIC-8



### [ADR421ARZ](#)

Analog Devices, Inc  
SOP-8



### [ADR3412ARJZ-R7](#)

Analog Devices, Inc  
SOT-23-6