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## Overview of AD5111/AD5113/AD5115 Connections and Functionality

### GENERAL DESCRIPTION

This quick start guide provides a general overview of AD5111/AD5113/AD5115 connections and functionality and should be reviewed in conjunction with the AD5111/AD5113/AD5115 data sheet.

### FUNCTIONAL BLOCK DIAGRAM

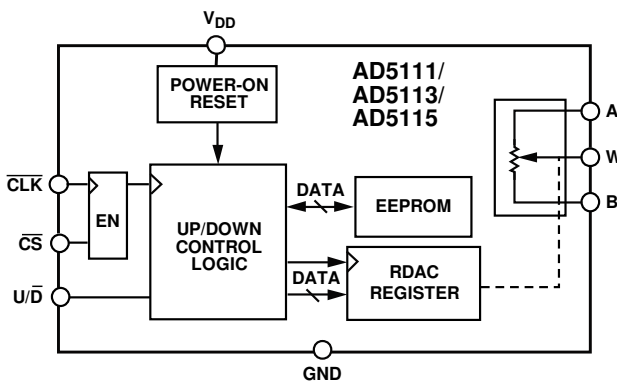
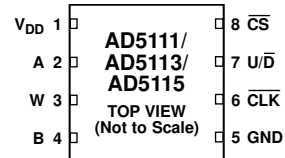


Figure 1.

10548-001

### PIN CONFIGURATION



NOTES  
1. THE EXPOSED PAD IS INTERNALLY FLOATING.

10548-003

Figure 2.

### PIN FUNCTION DESCRIPTIONS

Table 1.

Pin No.	Mnemonic	Description
1	V <sub>DD</sub>	Positive power supply.
2	A	Terminal A of RDAC.
3	W	Wiper terminal of RDAC.
4	B	Terminal B of RDAC.
5	GND	Ground pin.
6	CLK	Clock input.
7	U/ $\overline{D}$	Up/down selection.
8	$\overline{CS}$	Chip select.
	EPAD	Internally floating exposed pad.

### TYPICAL EXTERNAL CONNECTIONS

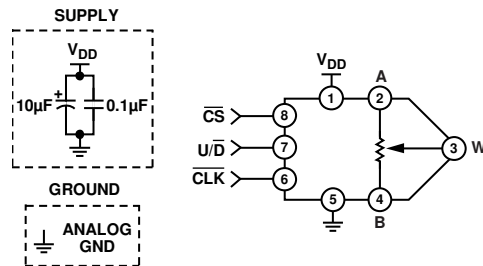


Figure 3.

10548-002

**OPERATIONAL CONDITIONS**

**Table 2. Specifications**

Parameter	Specification
V <sub>DD</sub> to GND	2.3 V to 5.5 V
V <sub>A</sub> , V <sub>W</sub> , V <sub>B</sub> to GND	GND to V <sub>DD</sub>
Maximum Continuous I <sub>A</sub> , I <sub>W</sub> , I <sub>B</sub>	
R <sub>AW</sub> = 5 kΩ and 10 kΩ	±6 mA
R <sub>AW</sub> = 80 kΩ	±1.5 mA
Maximum Clock (CLK)	50 MHz

**COMMANDS**

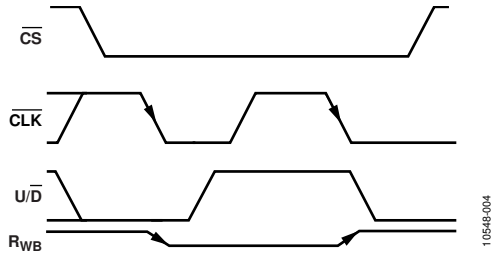


Figure 4. Increment and Decrement

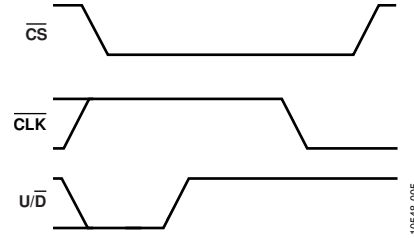


Figure 5. Shutdown

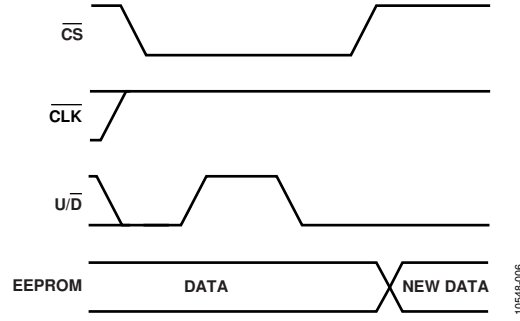


Figure 6. Store

**REVISION HISTORY**

3/12—Revision 0: Initial Version



**ESD Caution**

**ESD (electrostatic discharge) sensitive device.** Charged devices and circuit boards can discharge without detection. Although this product features patented or proprietary protection circuitry, damage may occur on devices subjected to high energy ESD. Therefore, proper ESD precautions should be taken to avoid performance degradation or loss of functionality.

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