

AD5541 & AD5542 Specification Improvements

As advised on PCN 09_0271 issued in December 2009, the AD5541 & AD5542 generics transferred from 6" Fab ADI Wilmington, to 8" Fab in Analog Devices Limerick. This fabrication transfer has resulted in a number of specification improvements and specification additions. These changes are detailed in the table below.

AD5541		
Specification	From (Old Specification)	To (New Specification)
Gain Error @25°C	± 5 LSB	±2 LSB
Gain Error	± 7 LSB	±3 LSB
Zero Code Error @25°C	± 1 LSB	±0.7 LSB
Zero Code Error	± 2 LSB	±1.5 LSB

AD5542		
Specification	From (Old Specification)	To (New Specification)
Bipolar Gain Error @25	± 5 LSB	±5 LSB
Bipolar Gain Error	± 7 LSB	±6 LSB
Bipolar Zero Code Error @25°C	± 1 LSB	±0.7 LSB
Bipolar Zero Code Error	± 2 LSB	±1.5 LSB
Bipolar Zero Code Offset Error	±7 LSB	±6 LSB

AD5542 & AD5541		
Specification	From (Old Specification)	To (New Specification)
I _{DD}	1.1mA	150uA
Digital to Analog Glitch Impulse	10nV.sec	1.1nV.sec
Digital Feedthrough	10nV-sec	0.2nV-sec
Slew rate	25V/us	17V/us
Logic Inputs Hysteresis Voltage	0.4V	0.15V
Reference -3dB Bandwidth	1.3MHz	2.2MHz
Reference Input Capacitance	75pF/120pF	26pF

In addition to these specification changes the AD5541 and AD5542 will now be specified to operate with a 3V V_{DD} supply, giving an extended supply range of 2.7V to 5.5V. The changed AD5541 & AD5542 material will be effective from date codes 1011 onwards. The changes highlighted above will be detailed in Rev. C of the datasheet which will be available from the ADI website.