

PCN_20_0174

ADG811, ADG812, ADG836, ADG836L and ADG804 Specification Limit Changes

PCN 20_0174 Data sheet

This document highlights the performance changes of Ron Max Specifications from the following:

- Rev. C to PCN 20_0174 data sheet for the ADG811/ADG812 Quad SPST Switches
- Rev. B to PCN 20_0174 datasheet for the ADG836 Dual SPDT
- Rev. B to PCN 20_0174 datasheet for the ADG836L Dual SPDT
- Rev. A to PCN 20_0174 datasheet for the ADG804 4-Channel Multiplexer

For full product information and changes to Ron Max Specifications please refer to the ADG811/ADG812 Rev. C, ADG836 Rev. B, ADG836L Rev. B, and ADG804 Rev. A data sheets.

Tables below outlines the datasheet Ron Max specification comparison of the covered generics to PCN 20_0174 data sheet:

- ADG811/ADG812, ADG836, ADG836L, and ADG804
 - Supplies: 2.7V to 3.6V, 2.5V, and 1.65V to 1.95V
 - Temperature Range: 25°C, 85°C, and 125°C

The changed specifications are highlighted in red font.

ADG811/ADG812 Rev. C data sheet

$V_{DD} = 2.7\text{ V}$ to 3.6 V , $GND = 0\text{ V}$, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 1.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	$V_{DD} = 2.7\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$; see Figure 20
On Resistance, R_{ON}	0.5			Ω typ	
	0.65	0.75	0.8	Ω max	$V_{DD} = 2.7\text{ V}$, $V_S = 0.5\text{ V}$, $I_S = 10\text{ mA}$
On-Resistance Match Between Channels, ΔR_{ON}	0.04			Ω typ	
		0.075	0.08	Ω max	$V_{DD} = 2.7\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$
On-Resistance Flatness, $R_{FLAT (ON)}$	0.1			Ω typ	
		0.15	0.16	Ω max	

PCN 20_0174 data sheet

$V_{DD} = 2.7\text{ V}$ to 3.6 V , $GND = 0\text{ V}$, unless otherwise noted. Temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 1.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	$V_{DD} = 2.7\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$; see Error! Reference source not found.
On Resistance, R_{ON}	0.5			Ω typ	
	0.75	0.85	0.9	Ω max	$V_{DD} = 2.7\text{ V}$, $V_S = 0.5\text{ V}$, $I_S = 10\text{ mA}$
On-Resistance Match Between Channels, ΔR_{ON}	0.04			Ω typ	
	0.095	0.095	0.1	Ω max	$V_{DD} = 2.7\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$
On-Resistance Flatness, $R_{FLAT (ON)}$	0.1			Ω typ	
	0.18	0.18	0.19	Ω max	

ADG811/ADG812 Rev. C datasheet

$V_{DD} = 2.5 \text{ V} \pm 0.2 \text{ V}$, $GND = 0 \text{ V}$, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 2.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance, R_{ON}	0.65			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V to } V_{DD}$, $I_S = 10 \text{ mA}$; see Figure 20
	0.72	0.8	0.88	Ω max	
On-Resistance Match Between Channels, ΔR_{ON}	0.04			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0.55 \text{ V}$, $I_S = 10 \text{ mA}$
		0.08	0.085	Ω max	
On-Resistance Flatness, $R_{FLAT(ON)}$	0.16			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V to } V_{DD}$, $I_S = 10 \text{ mA}$
		0.23	0.24	Ω max	

PCN 20_0174 data sheet

$V_{DD} = 2.5 \text{ V} \pm 0.2 \text{ V}$, $GND = 0 \text{ V}$, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 2.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance, R_{ON}	0.65			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V to } V_{DD}$, $I_S = 10 \text{ mA}$; see Error! Reference source not found.
	0.84	0.92	1.0	Ω max	
On-Resistance Match Between Channels, ΔR_{ON}	0.04			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0.55 \text{ V}$, $I_S = 10 \text{ mA}$
	0.1	0.1	0.105	Ω max	
On-Resistance Flatness, $R_{FLAT(ON)}$	0.16			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V to } V_{DD}$, $I_S = 10 \text{ mA}$
	0.25	0.25	0.26	Ω max	

ADG811/ADG812 Rev. C datasheet

$V_{DD} = 1.65\text{ V}$ to 1.95 V , $GND = 0\text{ V}$, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 3.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance, R_{ON}	1			Ω typ	$V_{DD} = 1.8\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$; see Figure 20
	1.4	2.2	2.2	Ω max	
	2.5	4	4	Ω max	$V_{DD} = 1.65\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$
On-Resistance Match Between Channels, ΔR_{ON}	0.1			Ω typ	$V_{DD} = 1.65\text{ V}$, $V_S = 0.7\text{ V}$, $I_S = 10\text{ mA}$

PCN 20_0174 data sheet

$V_{DD} = 1.65\text{ V}$ to 1.95 V , $GND = 0\text{ V}$, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 3.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance, R_{ON}	1			Ω typ	$V_{DD} = 1.8\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$; see Error! Reference source not found.
	1.6	2.4	2.4	Ω max	
	2.7	4.2	4.2	Ω max	$V_{DD} = 1.65\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$
On-Resistance Match Between Channels, ΔR_{ON}	0.1			Ω typ	$V_{DD} = 1.65\text{ V}$, $V_S = 0.7\text{ V}$, $I_S = 10\text{ mA}$

ADG836 Rev. B datasheet

V_{DD} = 2.7 V to 3.6 V, GND = 0 V, unless otherwise noted. The temperature range for the Y version is –40°C to +125°C.

Table 1.

Parameter	+25°C	–40°C to +85°C	–40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V _{DD}	V	
On Resistance (R _{ON})	0.5			Ω typ	V _{DD} = 2.7 V, V _S = 0 V to V _{DD} , I _S = 100 mA; Figure 19
	0.65	0.75	0.8	Ω max	
On-Resistance Match Between Channels (ΔR _{ON})	0.04			Ω typ	V _{DD} = 2.7 V, V _S = 0.65 V, I _S = 100 mA
		0.075	0.08	Ω max	
On-Resistance Flatness (R _{FLAT (ON)})	0.1			Ω typ	V _{DD} = 2.7 V, V _S = 0 V to V _{DD}
		0.15	0.16	Ω max	I _S = 100 mA

PCN 20_0174 data sheet

V_{DD} = 2.7 V to 3.6 V, GND = 0 V, unless otherwise noted. Temperature range for the Y version is –40°C to +125°C.

Table 4.

Parameter	+25°C	–40°C to +85°C	–40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V _{DD}	V	
On Resistance (R _{ON})	0.5			Ω typ	V _{DD} = 2.7 V, V _S = 0 V to V _{DD} , I _S = 100 mA; Error! Reference source not found.19
	0.75	0.85	0.9	Ω max	
On-Resistance Match Between Channels (ΔR _{ON})	0.04			Ω typ	V _{DD} = 2.7 V, V _S = 0.5 V, I _S = 100 mA
	0.095	0.095	0.1	Ω max	
On-Resistance Flatness (R _{FLAT (ON)})	0.1			Ω typ	V _{DD} = 2.7 V, V _S = 0 V to V _{DD} ,
	0.18	0.18	0.19	Ω max	I _S = 100 mA

ADG836 Rev. B datasheet

$V_{DD} = 2.5 \text{ V} \pm 0.2 \text{ V}$, $GND = 0 \text{ V}$, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 2.

Parameter	+25°C	-40°C to +85°C	-40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance (R_{ON})	0.65			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 100 \text{ mA}$; Figure 19
	0.72	0.8	0.88	Ω max	
On-Resistance Match Between Channels (ΔR_{ON})	0.04			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0.7 \text{ V}$, $I_S = 100 \text{ mA}$
		0.08	0.085	Ω max	
On-Resistance Flatness ($R_{FLAT(ON)}$)	0.16			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 100 \text{ mA}$
		0.23	0.24	Ω max	

PCN 20_0174 data sheet

$V_{DD} = 2.5 \text{ V} \pm 0.2 \text{ V}$, $GND = 0 \text{ V}$, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 5.

Parameter	+25°C	-40°C to +85°C	-40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance $R_{(ON)}$	0.65			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 100 \text{ mA}$; Error! Reference source not found.19
	0.84	0.92	1.0	Ω max	
On-Resistance Match Between Channels (ΔR_{ON})	0.04			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0.55 \text{ V}$, $I_S = 100 \text{ mA}$
	0.1	0.1	0.105	Ω max	
On-Resistance Flatness ($R_{FLAT(ON)}$)	0.16			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 100 \text{ mA}$
	0.25	0.25	0.26	Ω max	

ADG836 Rev. B datasheet

$V_{DD} = 1.65 \text{ V} \pm 1.95 \text{ V}$, $GND = 0 \text{ V}$, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 3.

Parameter	+25°C	-40°C to +85°C	-40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance (R_{ON})	1			Ω typ	$V_{DD} = 1.8 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 100 \text{ mA}$; Figure 19
	1.4	2.2	2.2	Ω max	
	2	4	4	Ω max	$V_{DD} = 1.65 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 100 \text{ mA}$; Figure 19
On-Resistance Match Between Channels (ΔR_{ON})	0.1			Ω typ	$V_{DD} = 1.65 \text{ V}$, $V_S = 0.7 \text{ V}$, $I_S = 100 \text{ mA}$

PCN 20_0174 data sheet

$V_{DD} = 1.65 \text{ V}$ to $\pm 1.95 \text{ V}$, $GND = 0 \text{ V}$, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 6.

Parameter	+25°C	-40°C to +85°C	-40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance (R_{ON})	1			Ω typ	$V_{DD} = 1.8 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 100 \text{ mA}$; Error! Reference source not found.19
	1.6	2.4	2.4	Ω max	
	2.7	4.2	4.2	Ω max	$V_{DD} = 1.65 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 100 \text{ mA}$ Error! Reference source not found.19
On-Resistance Match Between Channels (ΔR_{ON})	0.1			Ω typ	$V_{DD} = 1.65 \text{ V}$, $V_S = 0.7 \text{ V}$, $I_S = 100 \text{ mA}$

ADG836L Rev. B datasheet

$V_{DD} = 2.7\text{ V}$ to 3.6 V , $GND = 0\text{ V}$, unless otherwise noted. Temperature range for Y version is -40°C to $+125^{\circ}\text{C}$.

Table 1.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	$V_{DD} = 2.7\text{ V}$
On Resistance (R_{ON})	0.5			Ω typ	$V_{DD} = 2.7\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$
	0.65	0.75	0.8	Ω max	See Figure 18
On Resistance Match Between Channels (ΔR_{ON})	0.04	0.075	0.08	Ω typ	$V_{DD} = 2.7\text{ V}$, $V_S = 0.65\text{ V}$, $I_S = 10\text{ mA}$
On Resistance Flatness ($R_{FLAT(ON)}$)	0.1			Ω typ	$V_{DD} = 2.7\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$
		0.15	0.16	Ω max	

PCN 20_0174 data sheet

$V_{DD} = 2.7\text{ V}$ to 3.6 V , $GND = 0\text{ V}$, unless otherwise noted. Temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 7.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	$V_{DD} = 2.7\text{ V}$
On Resistance (R_{ON})	0.5			Ω typ	$V_{DD} = 2.7\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$
	0.75	0.85	0.9	Ω max	See Error! Reference source not found. 18
On Resistance Match Between Channels (ΔR_{ON})	0.04	0.075	0.08	Ω typ	$V_{DD} = 2.7\text{ V}$, $V_S = 0.65\text{ V}$, $I_S = 10\text{ mA}$
On Resistance Flatness ($R_{FLAT(ON)}$)	0.1			Ω typ	$V_{DD} = 2.7\text{ V}$, $V_S = 0\text{ V}$ to V_{DD} , $I_S = 10\text{ mA}$
	0.18	0.18	0.19	Ω max	

ADG836L Rev. B datasheet

$V_{DD} = 2.5 \text{ V} \pm 0.2 \text{ V}$, GND = 0 V, unless otherwise noted. Temperature range for Y version is -40°C to $+125^{\circ}\text{C}$.

Table 2.

Parameter	+25°C	-40°C to +85°C	-40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance (R_{ON})	0.65			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V to } V_{DD}$, $I_S = 10 \text{ mA}$
	0.72	0.8	0.88	Ω max	See Figure 18
On Resistance Match Between Channels (ΔR_{ON})	0.04			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0.7 \text{ V}$, $I_S = 10 \text{ mA}$
		0.08	0.085	Ω max	
On Resistance Flatness ($R_{FLAT(ON)}$)	0.16			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V to } V_{DD}$, $I_S = 10 \text{ mA}$
		0.23	0.24	Ω max	

PCN 20_0174 data sheet

$V_{DD} = 2.5 \text{ V} \pm 0.2 \text{ V}$, GND = 0 V, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 8.

Parameter	+25°C	-40°C to +85°C	-40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance (R_{ON})	0.65			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V to } V_{DD}$, $I_S = 10 \text{ mA}$
	0.84	0.92	1.0	Ω max	See Error! Reference source not found. 18
On Resistance Match Between Channels (ΔR_{ON})	0.04			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0.7 \text{ V}$, $I_S = 10 \text{ mA}$
	0.1	0.1	0.105	Ω max	
On Resistance Flatness ($R_{FLAT(ON)}$)	0.16			Ω typ	$V_{DD} = 2.3 \text{ V}$, $V_S = 0 \text{ V to } V_{DD}$, $I_S = 10 \text{ mA}$
	0.25	0.25	0.26	Ω max	

ADG836L Rev. B datasheet

$V_{DD} = 1.65 \text{ V} \pm 1.95 \text{ V}$, GND = 0 V, unless otherwise noted. Temperature range for Y version is -40°C to $+125^{\circ}\text{C}$.

Table 3.

Parameter	+25°C	-40°C to +85°C	-40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance (R_{ON})	1			Ω typ	$V_{DD} = 1.8 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 10 \text{ mA}$ See Figure 18
	1.4	2.2	2.2	Ω max	
	2	4	4	Ω typ	$V_{DD} = 1.65 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 10 \text{ mA}$
On Resistance Match Between Channels (ΔR_{ON})	0.1			Ω typ	$V_{DD} = 1.65 \text{ V}$, $V_S = 0.7 \text{ V}$, $I_S = 10 \text{ mA}$

PCN 20_0174 data sheet

$V_{DD} = 1.65 \text{ V}$ to 1.95 V , GND = 0 V, unless otherwise noted. The temperature range for the Y version is -40°C to $+125^{\circ}\text{C}$.

Table 9.

Parameter	+25°C	-40°C to +85°C	-40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance (R_{ON})	1			Ω typ	$V_{DD} = 1.8 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 10 \text{ mA}$ See Error! Reference source not found.18
	1.6	2.4	2.4	Ω max	
	2.7	4.2	4.2	Ω typ	$V_{DD} = 1.65 \text{ V}$, $V_S = 0 \text{ V}$ to V_{DD} , $I_S = 10 \text{ mA}$
On Resistance Match Between Channels (ΔR_{ON})	0.1			Ω typ	$V_{DD} = 1.65 \text{ V}$, $V_S = 0.7 \text{ V}$, $I_S = 10 \text{ mA}$

ADG804 Rev. A datasheet

V_{DD} = 2.7 V to 3.6 V, GND = 0 V, unless otherwise noted.¹

Table 1.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V _{DD}	V	
On Resistance (R _{ON})	0.5			Ω typ	V _{DD} = 2.7 V; V _S = 0 V to V _{DD} , I _S = 10 mA; Figure 18
	0.65	0.75	0.8	Ω max	
On Resistance Match between Channels (ΔR _{ON})	0.04			Ω typ	V _{DD} = 2.7 V; V _S = 0.65 V, I _S = 10 mA
		0.075	0.08	Ω max	
On Resistance Flatness (R _{FLAT(ON)})	0.1			Ω typ	V _{DD} = 2.7 V; V _S = 0 V to V _{DD} ,
		0.15	0.16	Ω max	I _S = 10 mA

PCN 20_0174 data sheet

V_{DD} = 2.7 V to 3.6 V, GND = 0 V, unless otherwise noted.¹

Table 10.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V _{DD}	V	
On Resistance (R _{ON})	0.5			Ω typ	V _{DD} = 2.7 V, V _S = 0 V to V _{DD} , I _S = 10 mA; Error! Reference source not found.18
	0.75	0.85	0.9	Ω max	
On Resistance Match between Channels (ΔR _{ON})	0.04			Ω typ	V _{DD} = 2.7 V, V _S = 0.65 V, I _S = 10 mA
	0.095	0.095	0.1	Ω max	
On Resistance Flatness (R _{FLAT(ON)})	0.1			Ω typ	V _{DD} = 2.7 V, V _S = 0 V to V _{DD} ,
	0.18	0.18	0.19	Ω max	I _S = 10 mA

ADG804 Rev. A datasheet

$V_{DD} = 2.5\text{ V} \pm 0.2\text{ V}$, GND = 0 V, unless otherwise noted.¹

Table 2.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance (R_{ON})	0.65			Ω typ	$V_{DD} = 2.3\text{ V}$; $V_S = 0\text{ V to }V_{DD}$, $I_S = 10\text{ mA}$; Figure 18
	0.77	0.8	0.88	Ω max	
On Resistance Match between Channels (ΔR_{ON})	0.4			Ω typ	$V_{DD} = 2.3\text{ V}$; $V_S = 0.7\text{ V}$; $I_S = 10\text{ mA}$
		0.08	0.085	Ω max	
On Resistance Flatness ($R_{FLAT(ON)}$)	0.16			Ω typ	$V_{DD} = 2.3\text{ V}$; $V_S = 0\text{ V to }V_{DD}$; $I_S = 10\text{ mA}$
		0.23	0.24	Ω max	

PCN 20_0174 data sheet

$V_{DD} = 2.5\text{ V} \pm 0.2\text{ V}$, GND = 0 V, unless otherwise noted.¹

Table 11.

Parameter	+25°C	−40°C to +85°C	−40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V_{DD}	V	
On Resistance (R_{ON})	0.65			Ω typ	$V_{DD} = 2.3\text{ V}$, $V_S = 0\text{ V to }V_{DD}$, $I_S = 10\text{ mA}$; Error! Reference source not found.18
	0.84	0.92	1.0	Ω max	
On Resistance Match Between Channels (ΔR_{ON})	0.04			Ω typ	$V_{DD} = 2.3\text{ V}$, $V_S = 0.7\text{ V}$, $I_S = 10\text{ mA}$
	0.1	0.1	0.105	Ω max	
On Resistance Flatness ($R_{FLAT(ON)}$)	0.16			Ω typ	$V_{DD} = 2.3\text{ V}$, $V_S = 0\text{ V to }V_{DD}$, $I_S = 10\text{ mA}$
	0.25	0.25	0.26	Ω max	

ADG804 Rev. A datasheet

V_{DD} = 1.65 V ± 1.95 V, GND = 0 V, unless otherwise noted.¹

Table 3.

Parameter	+25°C	–40°C to +85°C	–40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V _{DD}	V	
On Resistance (R _{ON})	1			Ω typ	V _{DD} = 1.8 V; V _S = 0 V to V _{DD} , I _S = 10 mA
	1.4	2.2	2.2	Ω max	
	2.2	4	4	Ω max	V _{DD} = 1.65 V, V _S = 0 V to V _{DD} , I _S = 10 mA; Figure 18
On Resistance Match between Channels (ΔR _{ON})	0.1			Ω typ	V _{DD} = 1.65 V, V _S = 0.7 V, I _S = 10 mA

PCN 20_0174 data sheet

V_{DD} = 1.65 V to 1.95 V, GND = 0 V, unless otherwise noted.¹

Table 12.

Parameter	+25°C	–40°C to +85°C	–40°C to +125°C	Unit	Test Conditions/Comments
ANALOG SWITCH					
Analog Signal Range			0 V to V _{DD}	V	
On Resistance (R _{ON})	1			Ω typ	V _{DD} = 1.8 V, V _S = 0 V to V _{DD} , I _S = 10 mA;
	1.6	2.4	2.4	Ω max	
	2.7	4.2	4.2	Ω max	V _{DD} = 1.65 V, V _S = 0 V to V _{DD} , I _S = 10 mA; Error! Reference source not found. 18
On Resistance Match between Channels (ΔR _{ON})	0.1			Ω typ	V _{DD} = 1.65 V, V _S = 0.7 V, I _S = 10 mA