

SPECIFICATIONS

PCM-DAC02

Analog Output & Digital I/O



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Typical for 25°C unless otherwise specified.

POWER CONSUMPTION

+5V (Normal operation)	48 mA typ, 65 mA max
+5V (During CIS read)	65 mA typ, 105 mA max

ANALOG OUTPUT

D/A converter type	AD7837 Dual MDAC
Resolution	12 bits
Number of channels	2
Output Ranges	$\pm 10V$, $\pm 5V$, 0 to 10V, 0 to 5V, each channel individually programmable
D/A pacing	Software paced
D/A trigger modes	Software
Data transfer	Programmed I/O
Offset error (calibrated)	± 1 LSB
Gain error (calibrated)	± 1 LSB
Differential non-linearity (D/A spec)	± 1 LSB
Integral non-linearity (D/A spec)	± 1 LSB
Monotonicity	Guaranteed monotonic
Throughput	System-dependent
Slew rate	7.2 V/ μ sec typ
Settling time (to $\frac{1}{2}$ LSB of FSR)	8 μ s typ
Current Drive	± 2.5 mA
Output short-circuit duration	15 mA indefinite
Output coupling	DC
Miscellaneous	Double-buffered output latches

DIGITAL I/O

Digital type	FPGA
Configuration	Two ports, four bits each. Programmable as 8 inputs, or 8 outputs, or 4 inputs and 4 outputs
Input low voltage	0.8V max
Input high voltage	2.0V min
Output low voltage ($I_{OL} = 4$ mA)	0.23V max
Output high voltage ($I_{OH} = -4$ mA)	3.86V min
Absolute maximum input voltage	-0.5V, +5.5V
Interrupt Enable	Programmable
Interrupt Source	External (Ext Int), falling edge triggered, cleared by a read of Base + 0 address

ENVIRONMENTAL

Operating temperature range	0 to 70°C
Storage temperature range	-40 to 100°C
Humidity	0 to 90% non-condensing

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