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ISO 9001
Company



Analog Output PCI Board
PD2-AO SERIES

- Analog outputs (choice of 8, 16 or 32 16 bit channels)
- Digital inputs (8 lines)
- Digital outputs (8 lines)
- Three 24 bit counters/timers
- Three clock/interrupt lines
- Channel list
- User defined power-on state
- Simultaneous channels update
- Onboard buffer size: 2k samples
- Linux drivers



SPECIFICATION

Number of Channels	8, 16 or 32
Resolution	16 bits
Update Rate	100 kS/S per channel, up to 1000 kS/S aggregate throughput
DSP Buffer Size	2 k samples (2 * 1k buffers IndSP)
Type of D/A	Double-buffered
Data Transfers	DMA, interrupts, software
Accuracy	± 2 LSB max
DNL	± 3 LSB max
Monotonicity	Over 15 bits
Temperature	40 to 85 °C
Gain Error	0.005%
Ranges	±10V Fixed
Output Coupling	DC
Output Impedance	0.15ohms max
Current Drive	±25 mA min, ±30 mA typ
Capacitive Loads	0.1 microF min
Settling Time	10 microS to 0.003%
Slew Rate	10 V/microS
Gain Bandwidth	1 MS/s
Noise	2 LSB RMS, 0...10000 Hz
Output Protection	Short to ground, ±15 V
Power-on state	0.0000V ±500 microV By default, user programmable
Gain drift	25 ppm/°C
Digital I/O	
Number of Channels	8 inputs and 8 outputs
Compatibility	CMOS/TTL, 2000V ESD protected

Power-on State	Logic Zero , default, user programmable
Data Transfers	DMA, interrupts, software
Input Termination	4.7Kohm pull-up to 5V
Output High Level	2.0V min @ -32 mA, 2.4V min @ -16 mA, 4.2V @ -2 mA
Output Low Level	0.55V max @ 64 mA
Input Low Voltage	0.0 - 0.8V
Input High Voltage	2.0 - 5.0V
Compliance	CE EMC

PRICES

DESCRIPTION	PRODUCT CODE
PD2-AO-8/16 8-channel analog output, 16 bits, 100 kS/s per channel, two 24-bit counter timers	960 038 23
PD2-AO-16/16 16-channel analog output, 16 bits, 100 kS/s per channel, two 24-bit counter timers	960 038 24
PD2-AO-32/16 32-channel analog output, 16 bits, 100 kS/s per channel, two 24-bit counter timers	960 038 25
PD2-AO-STP-16 16-channel screw-terminal panel for PD2-AO includes 96-way; 1 m cable	960 038 69
PD2-AO-STP-32 32-channel screw-terminal panel for PD2-AO includes 96-way; 1 m cable	960 038 70
PD-CBL-96 96-way pin-less, 1 m length, round, shielded cable with metal cover plates (Connects PD2-AO to PD2-AO-STP-32)	909 763 80

Offering 8, 16 and 32 analog outputs with 16 bit resolution, PD2-AO PCI-bus boards expand on the dual 12 bit calibration DAC-based supplied on PD2-MF multifunction boards. Here you not only significantly increase the number of analog outputs, you also keep 16 digital I/O lines and three counter/timers. With these functions, the PD2-AO is well suited to implement complex closed-loop systems, PID as well as handle motor control and many other industrial-automation tasks.

The card calibrates each analog output individually without using trim pots, and instead relies on a special D/A-based scheme that stores calibration coefficients in an EEPROM and loads them automatically upon power up. This method also keeps the boards out-puts in a pre-defined user-programmable state upon system start-up.