

ProDAQ Data Acquisition Function Cards

ProDAQ 3560 16-Channel, 16-Bit Isolated DAC Function Card

OVERVIEW

The ProDAQ 3560 Isolated Digital-to-Analog Converter Function Card is one of the ProDAQ high density cards, which can be fitted into the ProDAQ Motherboards and Carriers.

The unique ProDAQ architecture provides the user with the highest channel density and functionality available today.

This high density card contains 16 independent, 16-bit DAC channels. Each channel is equipped with its own DAC and fully isolated against other channels and ground. The ProDAQ 3560 DAC Function Card is specially designed for DC, low frequency and current loop applications.

There are three different standard voltage output versions of the ProDAQ 3560 available with ranges of either 0 to 10V, ± 10 V or ± 20 Volt, and one current output version with programmable ranges of 4-20 mA, 0-20 mA or 0-24 mA. Three other standard versions provide output ranges suitable for thermocouple simulation: ± 50 mV for thermocouple types B, and C; 0 to 50 mV for thermocouple types N, R, S and T; 0 to 100 mV for thermocouple types E, J and K. Versions with custom output ranges are available on request.

ProDAQ modules and carriers provide compability with all current popular software environments and allow users to safely and simply expand their existing hardware and software systems.

The ProDAQ 3560 DAC Function Card is supplied with VXIplug&play drivers for Windows. Drivers for Linux and VxWorks are available on request.

All **ProDAQ function cards** can be used in both ProDAQ VXIbus motherboards and LXI function card carriers, providing users with the highest channel density and functionality available today.

Features & Benefits

- ▶ **16 independent DACs**
- ▶ **16-bit resolution**
- ▶ **Fully isolated channel**
- ▶ **Different output ranges** available
- ▶ **Voltage and/or Current Output Versions**
- ▶ **Flexible triggering**
- ▶ **Up to 64 DAC channels** per VXIbus Slot or 1U LXI

For more information, visit www.bustec.com by scanning the code below.



SPECIFICATIONS

SAMPLING

Resolution	16-bit
Number of Channels	16
Isolation	350 V

OUTPUT CHARACTERISTICS 3560-Ax/-Bx/-Tx (Voltage Versions)

Output Range	0-50 mV, 0-100 mV, 0-10 V, ± 50 mV, ± 10 V, ± 20 V	
Output Current	5 mA per channel	
Output Coupling	DC	
Cut-off Frequency	280 Hz	
Output Impedance	< 0.05 Ω max.	
Settling Time	< 5 msec to 0.1% FSR (resistive load)	
Accuracy	< $\pm(0.01\%$ Setting + 1.5 LSB)	

	Voltage (V)	Current (mA)
Current Consumption	+24	100
	+12	100
	+5	150
	-12	100
	-24	100

3560-CC (Current Version)

Output Range	0-20 mA, 0-24 mA (Overrange Function), 4-20 mA	
Current Loop Voltage Compliance	21.5 V	
Output Filter Bandwidth	100 Hz	
Output Impedance	25 Ω	
Output Protection	Diode clamped to +24 V and Ground	
Settling Time	3.5 msec with 500 Ω (load dependent)	
Offset	+9 μ A typical	
Accuracy	0.16 % typical (FSD)	
Output Nonlinearity	0.012 % max	

	Voltage (V)	Current (mA)
Current Consumption	+24	80
	-24	80
	+5	120

FRONT PANEL I/O

Connectors	37-pin D-SUB
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PHYSICAL CHARACTERISTICS

Dimensions	230 x 106 mm
Weight	152 g

ENVIRONMENTAL

Temperature	0 $^{\circ}$ C to +50 $^{\circ}$ C (operational) -40 $^{\circ}$ C to +70 $^{\circ}$ C (storage only)
Humidity	10 % - 90 % (non-condensing)
Warm-up Time	< 30 minutes

SUPPORT

Software support	Driver support for Microsoft Windows, VxWorks, and Linux (Contact Bustec Ltd. for more information)
Configuration	Cards can be factory installed or field installed by user
Warranty Period	12 months (extended periods available at additional cost)

Ordering Information

- ▶ **3560-AB** 16-ch., 16-bit isolated DAC, 0-10 V output
- ▶ **3560-BB** 16-ch., 16-bit isolated DAC, ± 10 V output
- ▶ **3560-BC** 16-ch., 16-bit isolated DAC, ± 20 V output
- ▶ **3560-CC** 16-ch., 16-bit DAC, current output
- ▶ **3560-TB** 16-ch., 16-bit DAC, ± 50 mV, TC Types B/C
- ▶ **3560-TN** 16-ch., 16-bit DAC, 0-50 mV, TC Types N/R/S/T
- ▶ **3560-TK** 16-ch., 16-bit DAC, 0-100 mV, TC Types E/J/K
- ▶ **Other ranges available**

Related Products

- ▶ **ProDAQ 6100** LXI Function Card Carrier

Contact Bustec

▶ Europe

Bustec Ltd.
Bustec House
Shannon, Co. Clare
Ireland

T +353 61 707 100
F +353 61 707 106
E sales@bustec.com

▶ North America

Bustec, Inc.
1507 East Valley Parkway
Suite 3-412
Escondido, CA 92027
U.S.A.

T 909. 797.0484
F 760. 751.1284
E sales@bustec.com