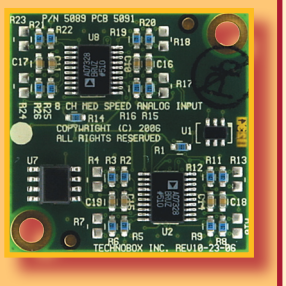
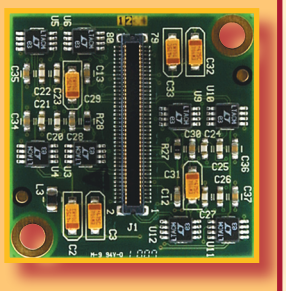
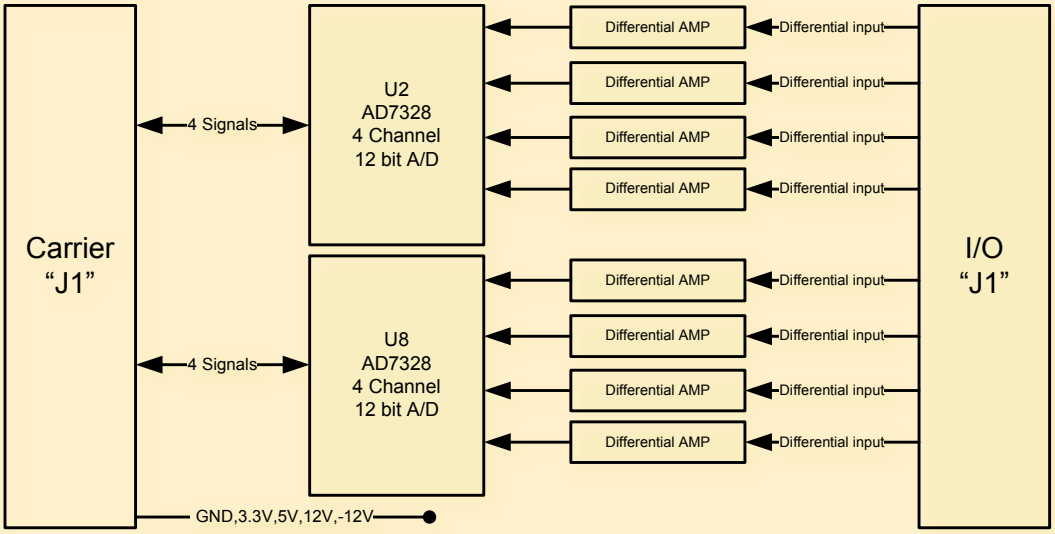
Conversion Module

8-channel, 12-bit Analog to Digital Converter





5089



- **Analog input ECM**
- **Analog Devices AD7328 medium speed ADCs**
- **12 bit / 250 KHz sampling**
- **482 KHz single pole analog input filters.**
- **Eight Differential Input channels**
- **Differential Input ranges: +/-2.5V, +/-5.0V, and +/-10.0V selectable**
- **Single Ended Input ranges: +/-2.5V and +/-5.0V selectable**
- **On-board serial identification circuit**
- **Industrial temperature range**
- **RoHS compliant**
- **Patented**

Specifications

Temperature (Operating): -40 to +85 degrees C

Temperature (Storage): -55 to +100 degrees C

Altitude: Not Specified or Characterized. Typical similar equipment is at 15,000 ft.

Humidity (Operating/Storage): 5% to 90% non-condensing

Vibration: Not specified or Characterized

Shock: Not specified or Characterized

MTBF: Available on request

Weight: 3 grams

Power: TBD

Ordering Information

5089: 8-channel, 12-bit Digital to Analog Converter

Technobox, inc.®

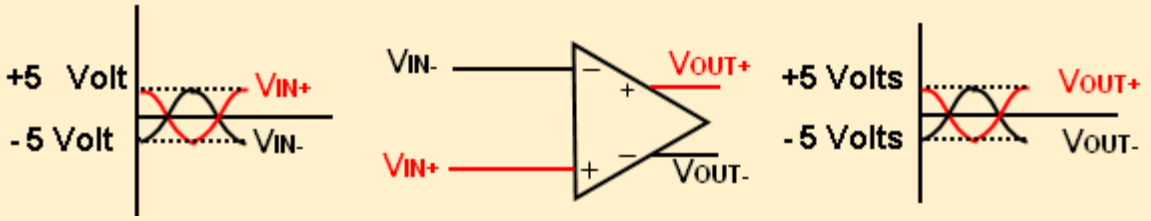
140 Mount Holly Bypass
Unit 1
Lumberton, NJ 08048

Tel: 609-267-8988
Fax: 609-261-1011

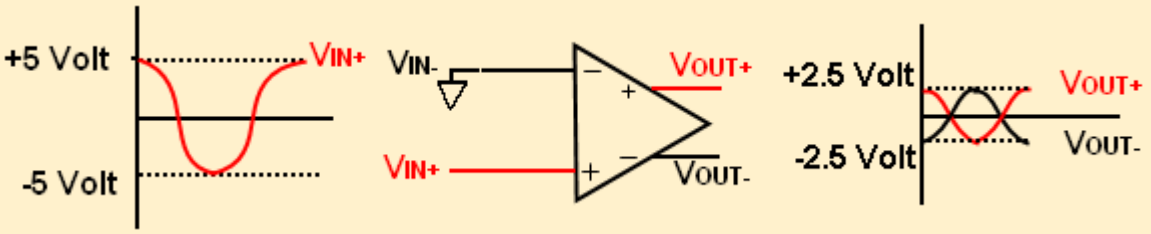
www.technobox.com

The 5089 uses a 482 KHz low pass filtered differential input amplifier to drive an AD7328 medium speed differential input A/D converter.

Differential inputs are limited to +/- 10 volts differential with a common mode of 0 volts.



Single Ended Inputs. Single ended inputs are limited to +/- 5.0 volts with common mode of 0 volts.



User IO	J1 Pin number	Direction J1	Description
IO0	16	INPUT	U2 VIN0 Differential Input +
IO1	18	INPUT	U2 VIN1 Differential Input -
IO2	28	INPUT	U2 VIN4 Differential Input +
IO3	30	INPUT	U2 VIN5 Differential Input -
IO4	52	INPUT	U2 VIN6 Differential Input +
IO5	54	INPUT	U2 VIN7 Differential Input -
IO6	64	INPUT	U2 VIN2 Differential Input +
IO7	66	INPUT	U2 VIN3 Differential Input -
IO8	65	INPUT	U8 VIN0 Differential Input +
IO9	63	INPUT	U8 VIN1 Differential Input -
IO10	53	INPUT	U8 VIN4 Differential Input +
IO11	51	INPUT	U8 VIN5 Differential Input -
IO12	29	INPUT	U8 VIN6 Differential Input +
IO13	27	INPUT	U8 VIN7 Differential Input -
IO14	17	INPUT	U8 VIN2 Differential Input +
IO15	15	INPUT	U8 VIN3 Differential Input -

Table 1 User IO signal connections

Carrier Data	J1 Pin number	J1 Direction	Description
DA0	10	N/C	No connection
DA1	12	N/C	No connection
DA2	22	N/C	No connection
DA3	24	N/C	No connection
DA4	34	N/C	No connection
DA5	36	N/C	No connection
DA6	46	N/C	No connection
DA7	48	N/C	No connection
DA8	58	INPUT	U2, Serial Data input
DA9	60	INPUT	U2, data clock
DA10	70	INPUT	U2, chip select
DA11	72	OUTPUT	U2, Serial Data output
DA12	71	N/C	No connection
DA13	69	N/C	No connection
DA14	59	N/C	No connection
DA15	57	N/C	No connection
DA16	47	N/C	No connection
DA17	45	N/C	No connection
DA18	35	N/C	No connection
DA19	33	N/C	No connection
DA20	23	INPUT	U8, Serial Data input
DA21	21	INPUT	U8, data clock
DA22	11	INPUT	U8, chip select
DA23	9	OUTPUT	U8, Serial Data output
DA24	40	N/C	No connection
DA25	41	N/C	No connection
DA26	42	N/C	No connection
DA27	39	N/C	No connection

Table 2 Carrier DA signal connections