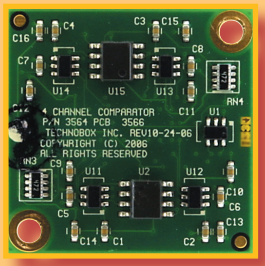
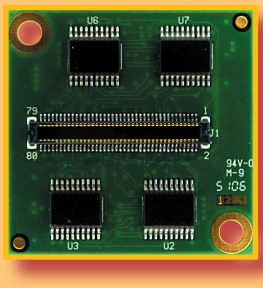
Conversion Module

4-channel Analog, High Common Mode Comparator





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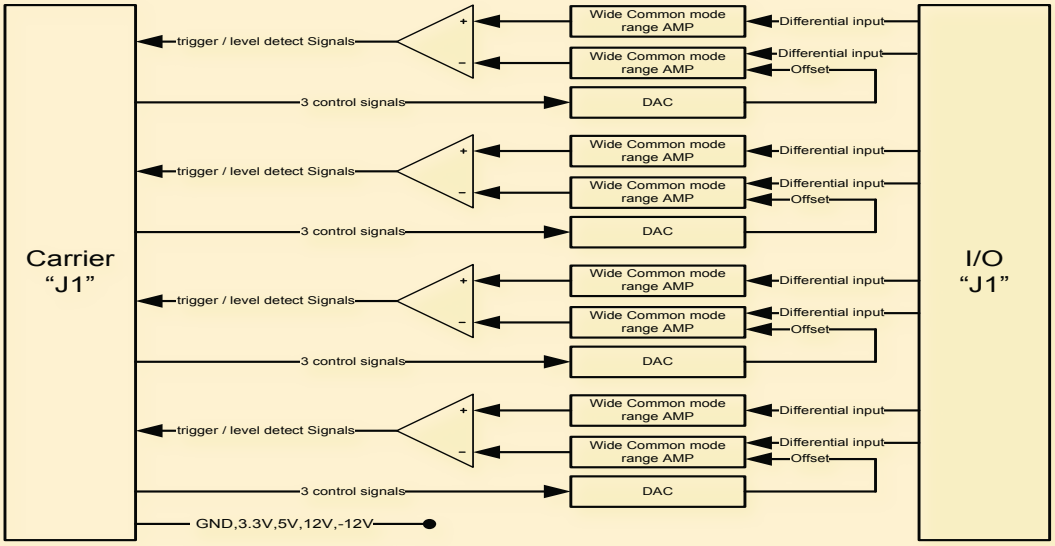


- **Analog input 4 channel comparator ECM**
- **Voltage threshold detection**
- **Voltage level triggering**
- **Common mode range -150V to 150V**
- **Differential signal inputs**
- **Differential reference inputs**
- **Reference also set by DAC**
- **1M ohm common mode input impedance**
- **2M ohm differential input impedance**
- **Input offset +/- 5mV**
- **Monitors current levels with a reference resistance**
- **On-board serial identification circuit**
- **Extended 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

3564: 4-channel, High-common Mode Analog Comparator

Technobox, inc.®

140 Mount Holly Bypass
Unit 1
Lumberton, NJ 08048

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

www.technobox.com

Technobox P/N 3564 is General Purpose 4 channel Comparator board.

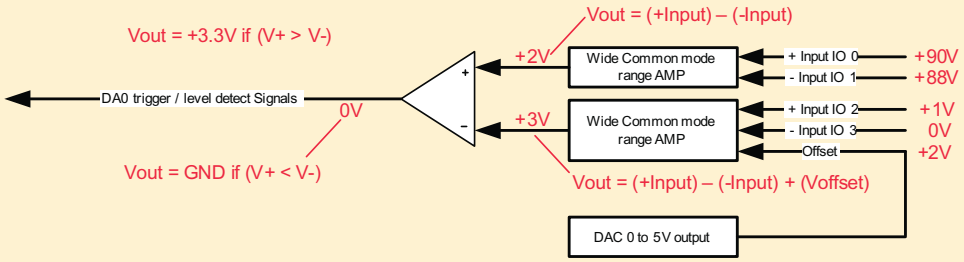
With a common mode input range of -150V to 150V, and differential signal inputs and differential reference inputs, a wide ranges of signal level triggering and threshold detection can be accommodated.

An on board DAC can be used for the reference/trigger level in the absence of a reference input.

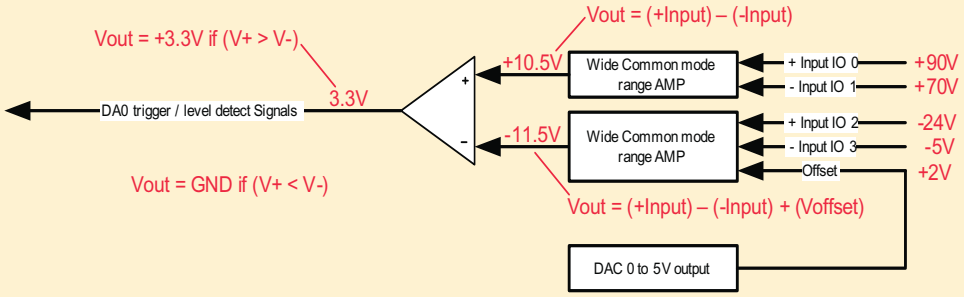
Can be used to monitor current levels with a reference resistance.

Input impedance is 1M ohm common mode, 2M ohm differential with a +/- 5mV input offset.

All input IO0 through IO15 will tolerate up to +/-100 Volt signals, allowing monitoring of a wide range of signals, current levels and triggers. In the example shown 5 voltage levels set the binary output of the comparator.



For large differences between pairs, IO0/IO1 and IO2/IO3 in this example the outputs of the input amplifiers will saturate. Typical saturation values are +10.5V and -11.5V.



User IO	J1 Pin number	Direction J1	Description
IO0	16	INPUT	DA0 channel U3 +
IO1	18	INPUT	DA0 channel U3 -
IO2	28	INPUT	DA0 channel U4 +
IO3	30	INPUT	DA0 channel U4 -
IO4	52	INPUT	DA6 channel U5 +
IO5	54	INPUT	DA6 channel U5 -
IO6	64	INPUT	DA6 channel U6 +
IO7	66	INPUT	DA6 channel U6 -
IO8	65	INPUT	DA12 channel U7 +
IO9	63	INPUT	DA12 channel U7 -
IO10	53	INPUT	DA12 channel U8 +
IO11	51	INPUT	DA12 channel U8 -
IO12	29	INPUT	DA18 channel U9 +
IO13	27	INPUT	DA18 channel U9 -
IO14	17	INPUT	DA18 channel U10 +
IO15	15	INPUT	DA18 channel U10 -

Table 1 User IO signal connections

Carrier Data	J1 Pin number	J1 Direction	Description
DA0	10	OUTPUT	DA0 channel comparator output
DA1	12	INPUT	DA0 channel, U11, DAC, sync signal
DA2	22	INPUT	DA0 channel, U11, DAC, clock signal
DA3	24	INPUT	DA0 channel, U11, DAC, data signal
DA4	34	N/C	No Connection
DA5	36	N/C	No Connection
DA6	46	OUTPUT	DA6 channel comparator output
DA7	48	INPUT	DA6 channel, U12, DAC, sync signal
DA8	58	INPUT	DA6 channel, U12, DAC, clock signal
DA9	60	INPUT	DA6 channel, U12, DAC, data signal
DA10	70	N/C	No Connection
DA11	72	N/C	No Connection
DA12	71	OUTPUT	DA12 channel comparator output
DA13	69	INPUT	DA12 channel, U13, DAC, sync signal
DA14	59	INPUT	DA12 channel, U13, DAC, clock signal
DA15	57	INPUT	DA12 channel, U13, DAC, data signal
DA16	47	N/C	No Connection
DA17	45	N/C	No Connection
DA18	35	OUTPUT	DA18 channel comparator output
DA19	33	INPUT	DA18 channel, U14, DAC, sync signal
DA20	23	INPUT	DA18 channel, U14, DAC, clock signal
DA21	21	INPUT	DA18 channel, U14, DAC, data signal
DA22	11	N/C	No Connection
DA23	9	N/C	No Connection
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