

AVIT General Specs

Environmental

- Temperature Range -40C to +70C
- Operating input voltage range 7V to 32V

Analog Inputs

- Total of 16 analog inputs, +/- 5 V, 12 bit resolution
- Accuracy tolerance
 - 3% before calibration
 - < .5% after calibration
- Input impedance 900 KΩ
- Voltage protection +/- 40V
- 2 banks, each with 8 channels
- Sample rate of bank can be configured independently 1 Hz to 5 KHz, so that up to 8 channels could be collected at one rate, and up to 8 at another rate.

- 5000 Hz low pass anti aliasing analog filter(4-pole butterworth) for all channels
- Configurable filtering to provide 500, 250, 100, 50 and 20 Hz low pass filter (4-pole butterworth) or no filter selectable for each bank

Datalink Inputs

- 2 CAN channels able to collect data simultaneously at up to 1 Mbit/s
- J1708
- J1850 VPW and PWM
- SW CAN – selectable on second CAN channel

IO

- 2 USB Host ports (for memory sticks or networking).
- Banana plug wake up input for ignition sense
 - Max 40V
 - Trigger on 5V
- Status lights (internal software controllable)
- Wakeup button
- 4 Digital inputs and 4 Digital outputs (open collector)

Power Consumption

- Vehicle on – 200 mA
- Custom software will have the ability to command sleep or ultra low power sleep(off)
 - Sleep mode
 - < 70 mA @12V
 - Wake up time less then 200 ms
 - Ultra low power sleep mode
 - <10 mA @12V
 - Wake up time less then 10 s
 - Data is not preserved
- Wake up signals for either mode
 - Banana plug: Wake up on > 5V
 - Button: Wake up when pressed

AVIT Connector Pinouts

Vehicle Connector

Specified as a standard DB 15 connector (AVIT – female, Cable - male):

Pin 1 = No Connect
Pin 2 = CAN2 -
Pin 3 = CAN2 +
Pin 4 = J1850 -
Pin 5 = J1850 +
Pin 6 = Signal Ground
Pin 7 = Shield Ground
Pin 8 = Vehicle Power
Pin 9 = No Connect
Pin 10 = SW CAN
Pin 11 = No Connect
Pin 12 = CAN -
Pin 13 = CAN +
Pin 14 = J1708 -
Pin 15 = J1708 +

Analog Connector

Specified as a standard DB 25 connector

Pin 1 = Channel 1
Pin 2 = Channel 2
Pin 3 = Channel 3
Pin 4 = Channel 4
Pin 5 = Channel 5
Pin 6 = Channel 6
Pin 7 = Channel 7
Pin 8 = Channel 8
Pin 9 = No Connect
Pin 10 = Digital I/O 1
Pin 11 = Digital I/O 2
Pin 12 = Digital I/O 3
Pin 13 = Digital I/O 4
Pin 14 = Channel 9
Pin 15 = Channel 10
Pin 16 = Channel 11
Pin 17 = Channel 12
Pin 18 = Channel 13
Pin 19 = Channel 14
Pin 20 = Channel 15
Pin 21 = Channel 16
Pin 22 = Ground
Pin 23 = Ground
Pin 24 = Vehicle Power
Pin 25 = Ground