ORIENTATION PCB BY INTELLEGRE™ – PRELIMINARY SPECIFICATION & TEST DATA

Table of Contents

1.0 PCB Specifications

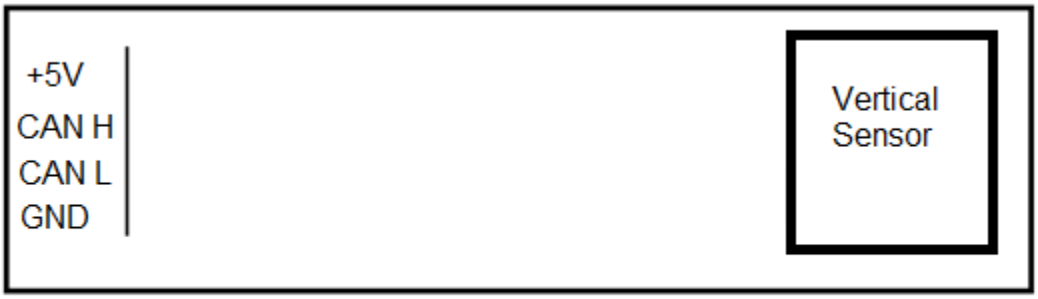
1.1 Environmental Rating

Description	Rating
Operating Temperature Range	-20 °F (-29 °C) to 350 °F (177 °C)
Non-powered Maximum Temperature	-58 °F (-50 °C) to 392 °F (200 °C)
Max Thermal Change	9°F (5 °C) / Minute
Mechanical Shock Compliance	Compliant to all hollow carrier gun systems
Vibration (3 axis)	10 g RMS @ Sweep Frequency 50-2500 Hz

1.2 Mechanical Specification

PCB dimensions are 2.5” X 4” but yet to be determined.

Pressure Sensor and Temperature Sensor are future inputs



Approximate dimension 4" X 2.5" wide.

1.3 Electrical Specification

Description	Rating
Operating Voltage Range	0VDC to 5 VDC (negative)
Operating Current– Standby	5mA
Communication Current	CAN Bus Telemetry (25ma)
Minimum Cable Head Volage	NA
Orientation Accuracy	+ / - 10 degrees
Communication Time Frame	Dependent on CAN 2.0 Master

2.0 Uni Orientation, Pressure, Temperature PCB Features

- Positive Voltage pass through
- Re-usable; cartridge type system eases modules replacement at end of life.
- Up/Down Communication provides surface with status for every command sequence
- Cartridge replacement recommended every 100 runs.

3.0 Test Results

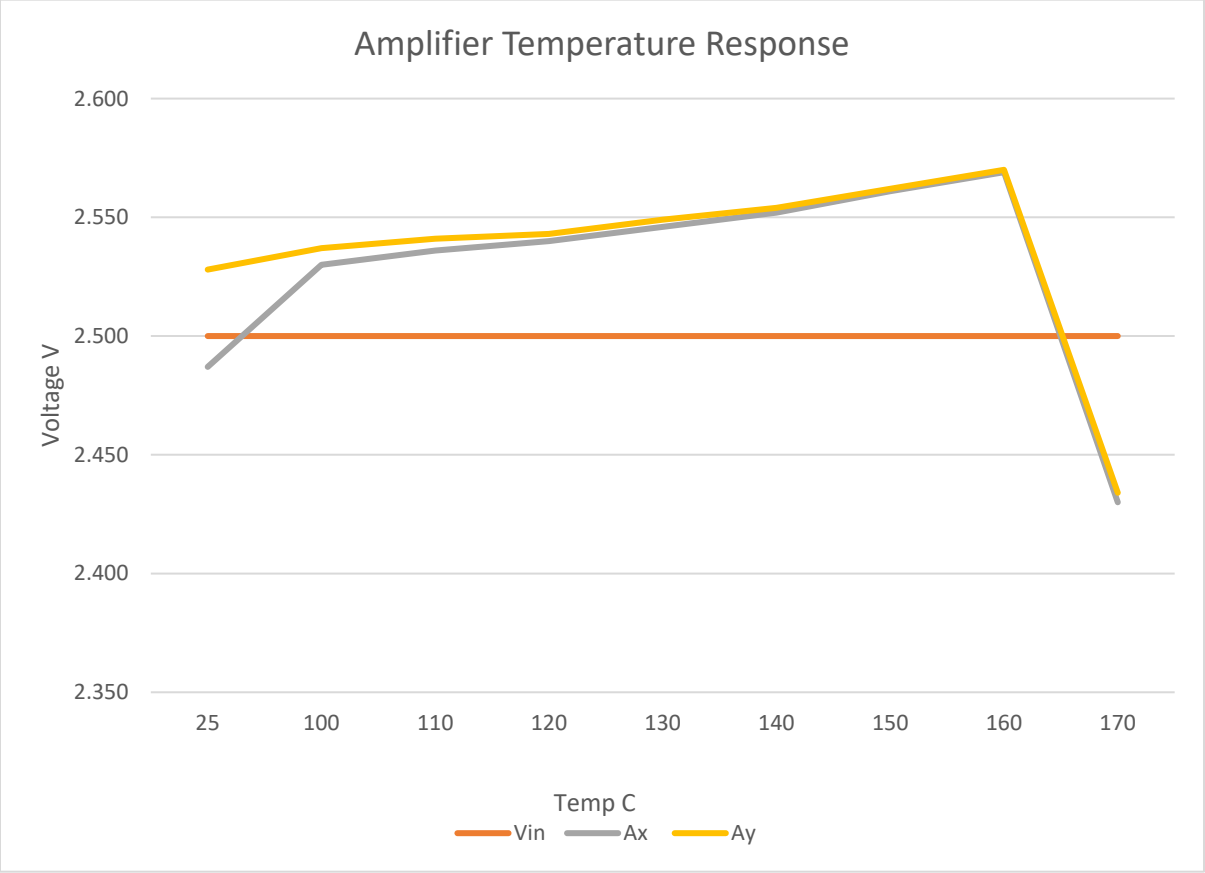


FIGURE 1

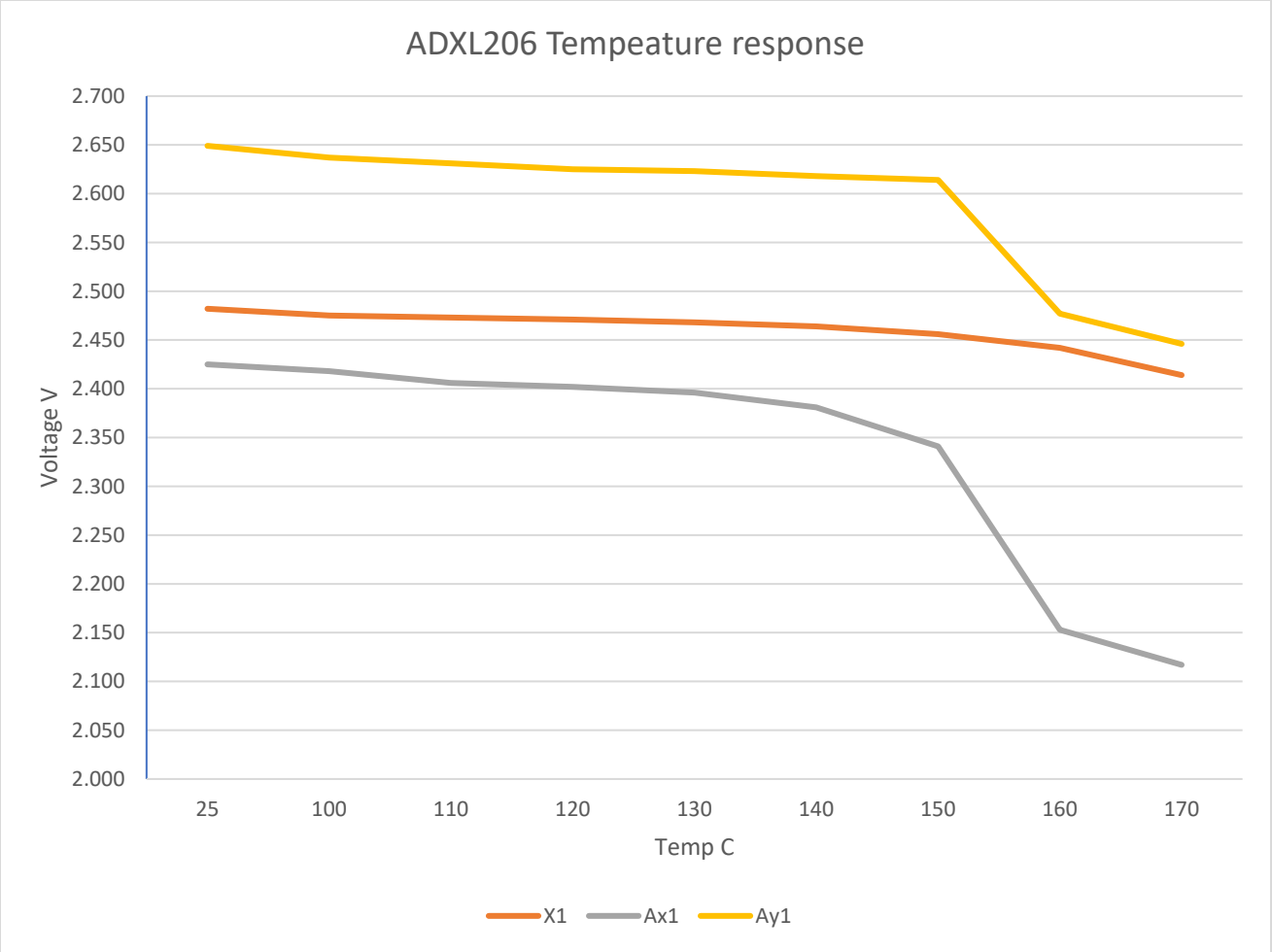


FIGURE 2

The accuracy provided in Table 1.3 includes the higher temperature ranges and is temperature uncompensated. As can be seen from the graphs above the accuracy is higher until the 160C range.