AIM 2200 Measurement System

We are in process to re-factoring an old industrial analog measurement system.

We need to measure 200 channels with 9 different voltage ranges spanning from ±39mV to ±10V.

We consider to make the design with the following structure:

Multiplexers: MUX507

PGA: PGA281

ADC: ADS8867 or ADS8166

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| Description: | Specification: | Comments: |
| BIT | 14 | Noise free stable bits. |
| CH sequencing | 75us max | The time include all settling of MUX (2us), PGA (40us), Filter time (15us) and ADC conversion (tbd, 15us). |
| Input type | Differential | All measurements must be made differential |
| FSD Input Voltage range | ±39mV, ±78mV, ±156mV, ±312mV, ±626mV, ±1.25, ±2.5V, ±5V, ±10V | 9 voltage range w. min 14 bit resolution in each range. |
| Supply voltage | Analog: ±15V  Digital: 5V, 3.3V |  |

Annual qty: 1-5K, production in 10-15years.