

SIA Presentation

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AHEAD OF WHAT'S POSSIBLE™

Analog Devices: Quick Overview



Over 4,700 patents and \$4 billion R&D investment in the past 10 years

Founded • 1965	Revenue	\$5.6Bn in FY2020
Headquarters • Wilmington, MA	Markets •	Industrial Communications, Automotive, Aero/Defense, Consumer, Health Care
Employees • ~16,400	Automotive Focus•	Electrification, Digital Experience, Autonomous Mobility
Countries • 30+	Publicly Listed	NASDAQ:ADI Part of S&P 500 and NASDAQ 100

Global Manufacturing •

U.S. (Massachusetts, California, Washington), Ireland, Philippines, Malaysia



Typical EV Pack and Battery Management System

BMS Functions

<u>1. MEASUREMENT</u>

- Every cell in a high voltage Li-ion pack must be measured, voltage, current, and temperature
- Accurate measurements extend range, reduce cost, through better SOC estimation
- Accurate measurements reduce charging time

2. BALANCE

- · Cell imbalance limits the pack's capacity
- Every cell must be balanced with minimum impact to cost and measurement accuracy.

3. DATA COMM.

- Data integrity is critical, the EMI is horrible, high voltage isolation is required
- "The vendor who solves the data communications problem will win the market" from a major USA OEM

4. SAFETY

It must be safe or nothing else matters. ISO26262 ASIL-D,



12 cells per module8 modules per pack400V total output voltage

BMS Consumer and Ecosystem Impact Accelerating the Adoption of Sustainable Electric Vehicles





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