

# Portofolio of CCS (Cell Contacting System)

Mass produced  
&  
Under development products

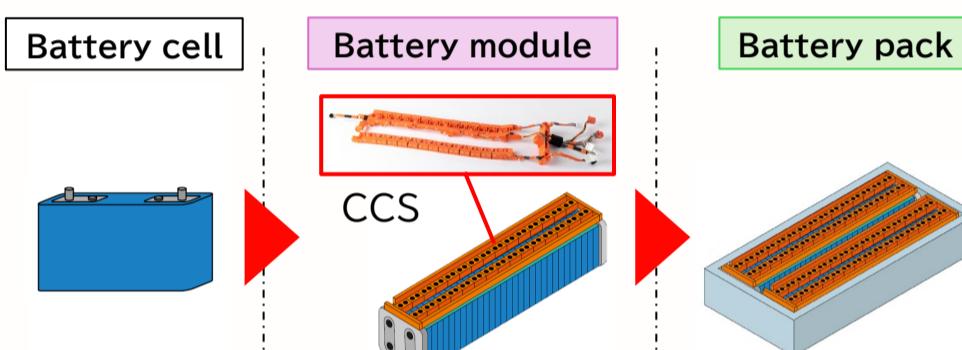
- Electrically connects battery cells and modularizes the battery
- Detects battery cell voltage and temperature, and protects detector wires with FUSE

## Background or Challenges

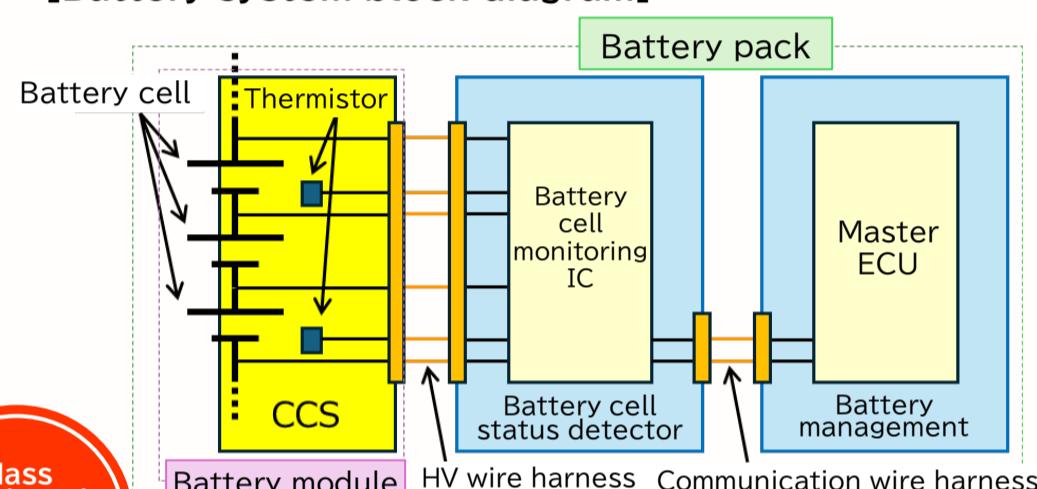
Provides low height and light CCS for battery modules in EVs with increasing capacities and densities

## Solutions to Challenges or Features

### ● CCS(Cell Contacting System)



### [Battery system block diagram]



#### <Wire type>

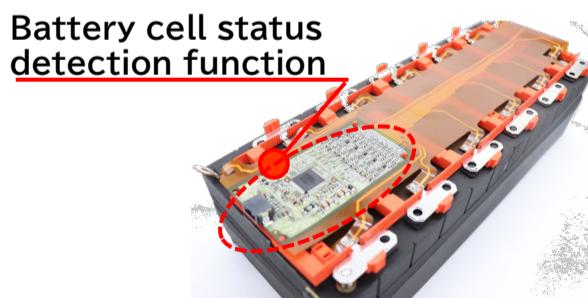


Electrification products based on our accumulated technologies

- High flexibility in wire routing
- Easily absorbs excess length

Mass produced since 1997

#### <FPC type with battery cell detection function>



Battery cell voltage and temperature detection circuit mounted on FPC

- Saves space by integrating functions
- Reduces routing area by reducing HV wire harnesses

Mass produced since 2022

#### <FPC type>

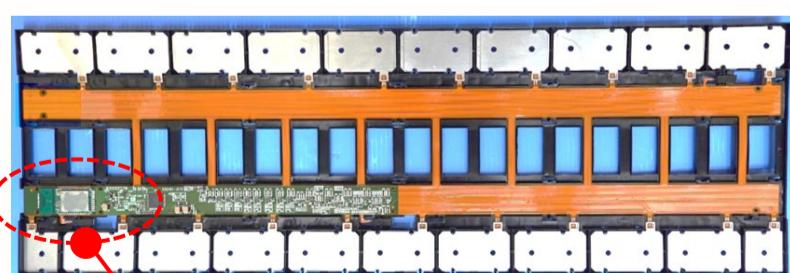


Replacement of routing materials with FPC

- Reduces the height of wiring components
- Ensures product quality by using automated production
- Directly mounts fuses and thermistors on FPCs

Under development Available in 2028

#### <Wireless type>



Under developed Available in 2029

Wireless module

- Turns communication wire harness connection into wireless
- Saves space by eliminating wire harnesses
- Reduces weight
- No need to consider routing paths