



External sensing board can be attached to the current collector using a laser welding technique



Positive and negative terminals are formed down to cell level for laser weld or wire bond attachment

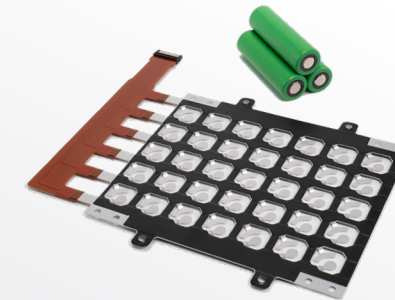


Signal lines, passive, and active components are directly integrated on the surface of current collector



Markets:
Electric vehicles:
passenger cars,
e-Bus, e-Trucks,
e-Motorcycles,
fork lifts
Battery energy storage

Applications:
Connections for
cylindrical
and prismatic
battery cells

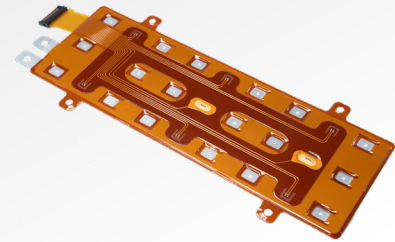


Rogers Corporation
www.rogerscorp.com
www.rolinx.com

ROLINX[®] Hybrid Customized Battery Cell Interconnection

Product Information

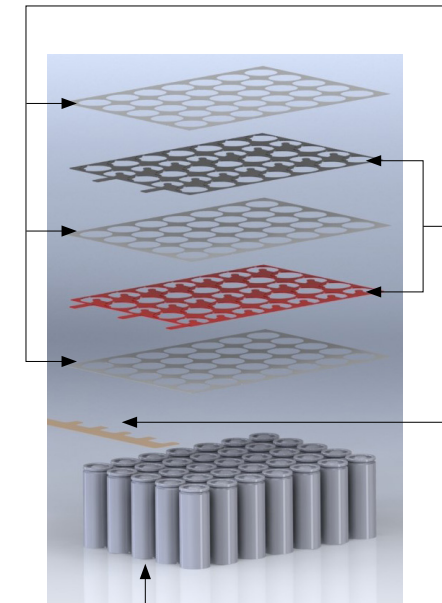
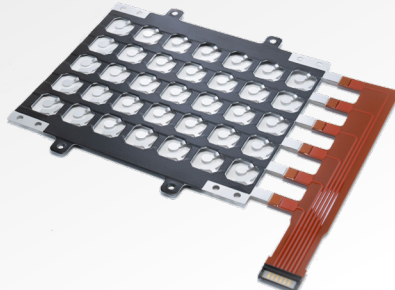
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ROLINX Hybrid is Rogers' one-piece solution with an integrated flex circuit, connectors, surface mount components, and other sensing voltage components to plug into the battery module and connect to the battery management system.

Unique Selling Propositions:

- // Customized single/multi-layer current collector designs
- // Supports various current densities and cell array configurations
- // Tight-tolerance current collectors
- // Integrated signaling lines for Battery Management System (BMS)
- // Integration of passive and active components
- // Quick time-to-market
- // In-house production capabilities



Cylindrical battery cell

Top, Middle and Bottom insulation layers

Adhesive-backed (double/single-sided) insulation layers attached to current collectors

Top and Bottom Current Collectors/ Conductors

High-precision stamped and laser-cut for tight tolerances

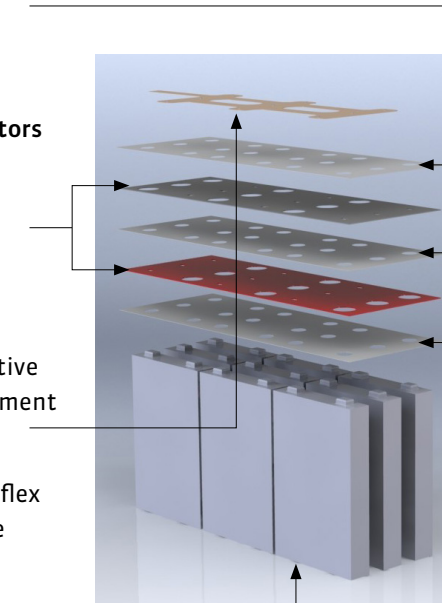
Single/multi-layer configuration

Specific configurations to obtain required outputs

Formed down to cell level positive and negative terminals for laser weld or wire bond attachment

Sensing and signal lines

Adhesive-backed integrated or laser welded flex circuit with signal lines and passive or active components



Prismatic battery cell

Parameter	Typical value	Remarks
Current Collectors	Copper, Aluminum	
Insulation Layers	Flexible films: PET, Polyimide	
Surface Treatment of Current Collector	Tin or Nickel plating	
Max. Voltage	1.0 kV DC	
Max. Power	up to 300kW	
Continuous Operating Temperature Range	-50°C / +125°C	
Relative Humidity	55°C / 95%RH	
Battery Cell Types	Cylindrical 18650, 21700, 4680; Prismatic	
Current Collector Sizes (W x L)	600X1500 mm	Fully customize dimensions
Current Collector Thickness	0,25 – 4 mm	Different thicknesses are available
Insulation Layer Thickness	0,1 mm – 1,0 mm	Thermal activated adhesive
Voltage Sense Line	≤2A, 50V	
Temperature Sensing	4,7 - 210kΩ at 25°C	SMD Thermistor