

A stylized map of the Asia-Pacific region is centered in the upper half of the slide. The map is white and set against a dark teal background. Overlaid on the map is a network of yellow lines connecting various points, suggesting a global or regional communication network. The background also features faint, abstract geometric shapes in shades of teal.

# APAC Sales Meeting

Dec 2022  
ProTrad Corp./Japan  
Hitoshi HIRAI

# Project overview



Project	EV Battery package project for Construction and agricultural machinery	Start	2016
Customer	Power Supply Technology	Value	60 pcs as the first year In future, it is depending on the market share and the development
Project Phase	<ul style="list-style-type: none"> <li>Final stage for the first mass production (January 2023)</li> </ul>		
Customer Goals	Supply to many application to EV manufacturer for Construction and agricultural machinery		
Project Description	<ul style="list-style-type: none"> <li>2016 Presentation start and Technical clarification</li> <li>2017 Test package for EV camping car based on Nissan car</li> <li>2020 New project has been started.</li> <li>2021 Test and clarification by Japanese customer</li> <li>2022 Test and clarification by Japanese customer</li> <li>2023 The first production and export to Europe</li> </ul>		

Final Product Pictures



Application (Picture)



## At a glance



### Customer problem

Japanese customer's tough requirement and the requested High Quality level

### Solution

Many testing, many clarification in detail and Quality check because the requirement comes from Japanese EV manufacturer.

### Benefit for the customer

Total cost saving by Good performance of Bender IMD and matching with International standard for Export

### Project scope

1st supply customer : Nissan subsidiary  
2nd supply customer : Kubota  
Approaching to Company „H“, „Y“ and „N“



## The first Project for Nissan Camping Car



- As the first project, IR155 has been applied for the large battery system for Nissan Camping Car. -> Failed for sales.



## The second Project for Kubota



# EV shifting for Construction and Construction and agricultural machinery



### Kubota Concept Tractor

Japanese MFRs for Construction and agricultural machinery wants to get the market share in world for this application.

He wants to expand the application using this battery package.

Domestic use & Export to Europe



## Tough clarification and Tight request for quality level and the control



To get the order for Mass production from Power Supply Technology (Actually, same for Japanese customers)

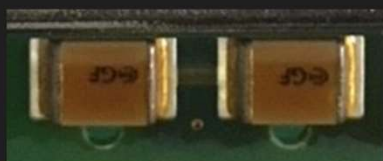
- Any Japanese customer asks the detail clarification in case of the application for Mass production
- High quality level is required.  
(Ex. Heat Shock Test : 100 time in Europe, 2000-3000 times in Japan)

- Quality control level must be kept at high level.  
Japanese customer can charge the damage caused by Manufacturer fault.  
(Importer's duty by Japanese law.)

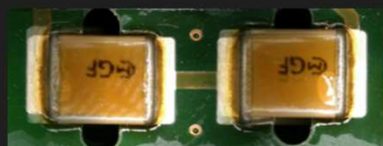
- Stable delivery



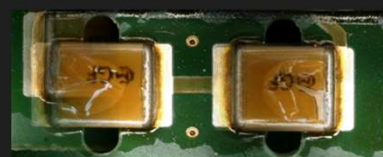
# Heat Shock Test



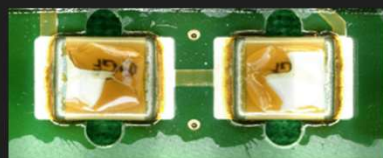
0cyc  
500 Cycle  
500cyc



1000 Cycle  
1000cyc



1500 Cycle  
1500cyc



2000 Cycle  
2000cyc

Crack of the coating is confirmed.



0 Cycle

MAN Standard asks 100 time for European standard.  
But Japanese customer asks the test based on Japanese customer's standard.  
Because Customer wants to check how damage is given.

## Future & Request for Japanese Market



### Request from Japanese market

#### 1. Good Quality Control

Construction and Agriculture equipment is harder for environmental condition than EV

#### 2. Stable Delivery

#### 3. Quick response regarding the technical issue and QC matter

### Future

The result comes from the reliability of the product and the confidence of Bender and Agent



End



- Thank for your attention