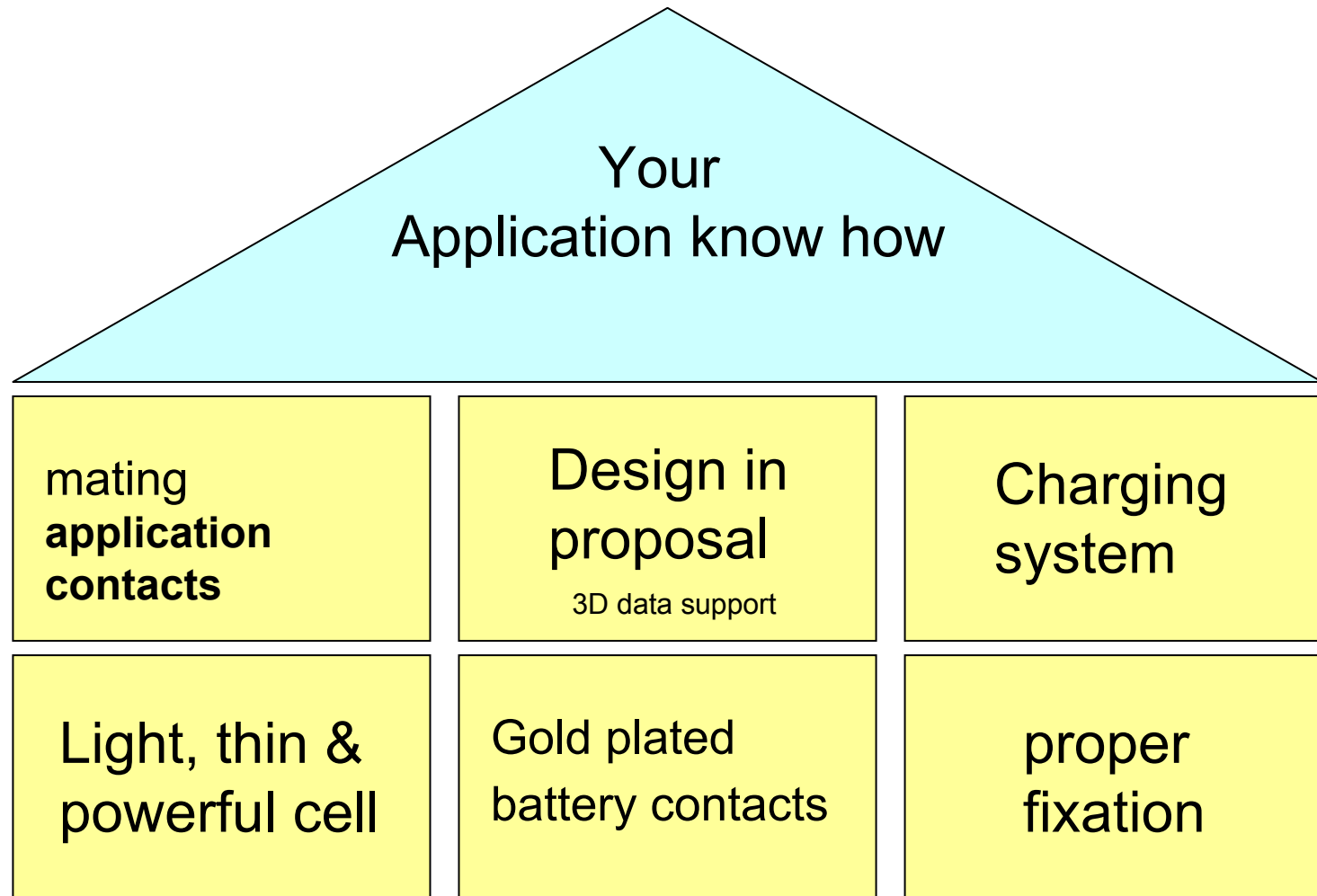


VARTA EasyPack Concept → The „off the shelf solution“

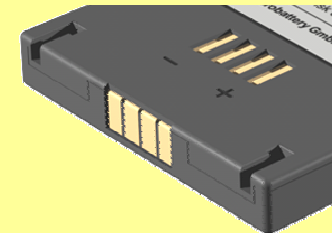
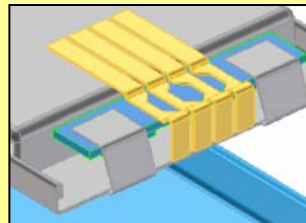
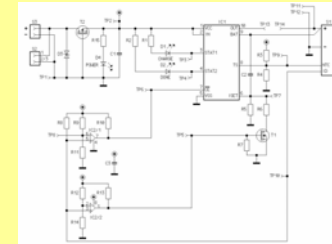
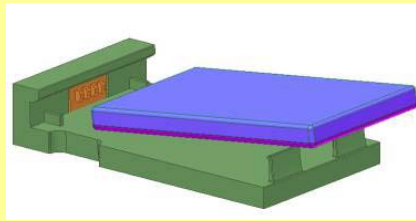
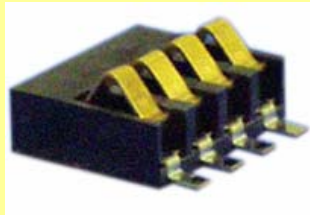
What is needed to build your portable application?



VARTA EasyPack Concept → The „off the shelf solution“

Here the solution!

The pride of creation  
YOUR Application



**VARTA EasyPack → Benefits****Time to Market!**

The ready to use battery allows designer fast prototyping and secures project schedules. No need for 'battery project management'.

**Minimized NRE cost!**

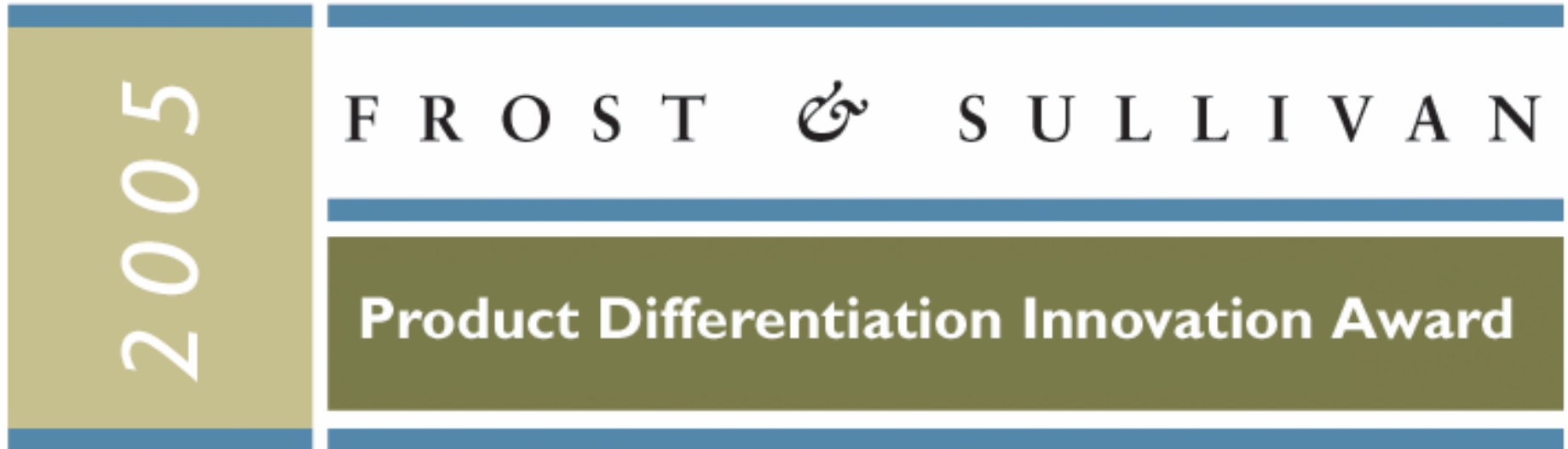
- no NRE cost for **battery housing** needed
- no NRE cost for **battery contacts** needed
- no NRE cost for **mating application contacts** needed
- no NRE cost for **charging/charger design** needed
- no NRE cost for **UN IATA transportation testing** needed
- no NRE cost for **UL approval/recognition** needed

**Reduced Design In times → "Off the shelf solution"**

**Various footprints and capacity – one contact method!**

Patent pending

## VARTA EasyPack → Latest NEWS

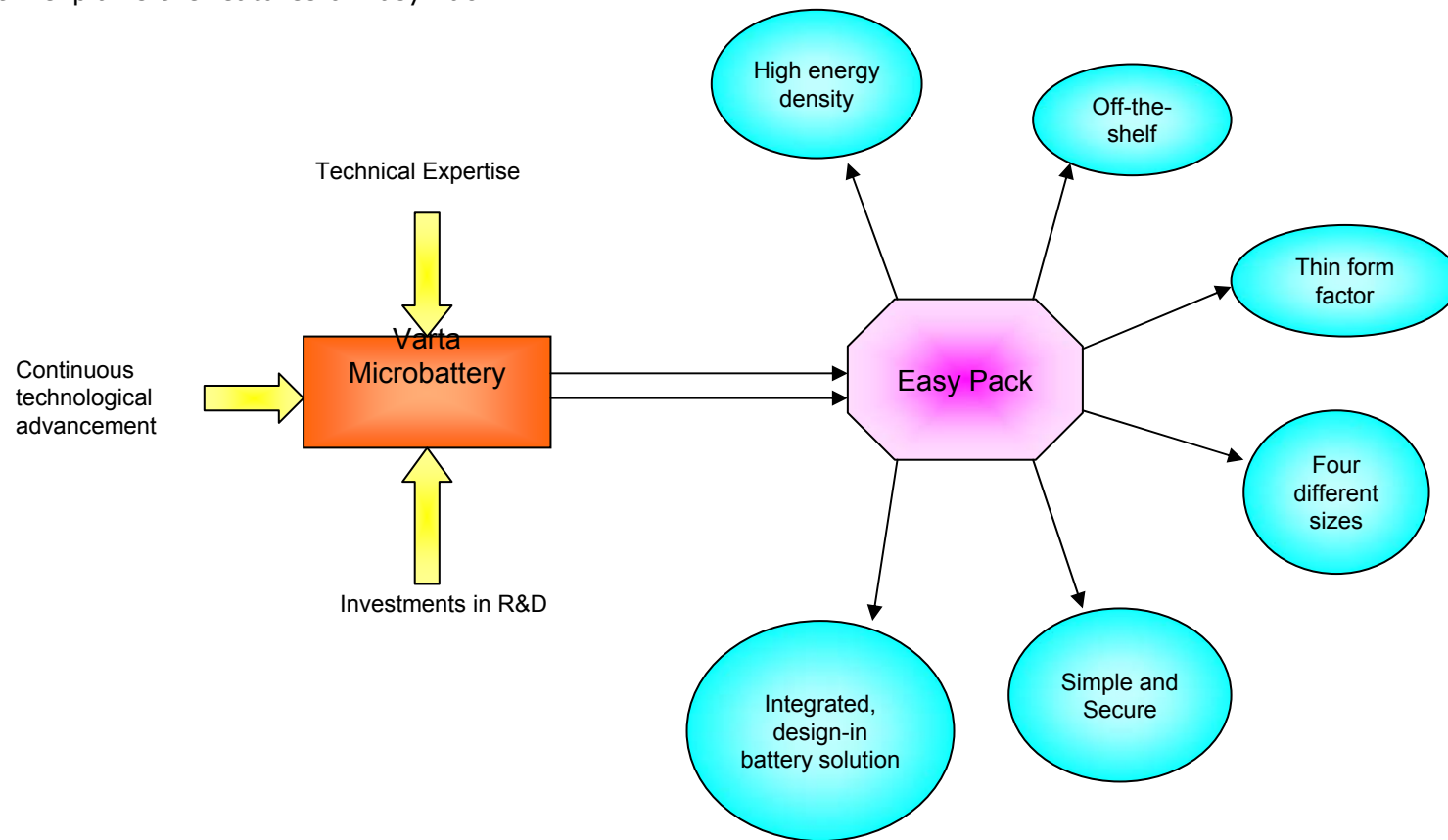


The 2005 Frost & Sullivan Product Differentiation Innovation Award for the world industrial secondary lithium battery market is presented to Varta Microbattery for its highly improved and integrated 'Easy Pack' Lithium Polymer battery solution.

## VARTA EasyPack → Latest NEWS

## 2005 Frost & Sullivan Award for Product Differentiation Innovation

Chart 1 explains the features of Easy Pack.



**Source: Frost & Sullivan**

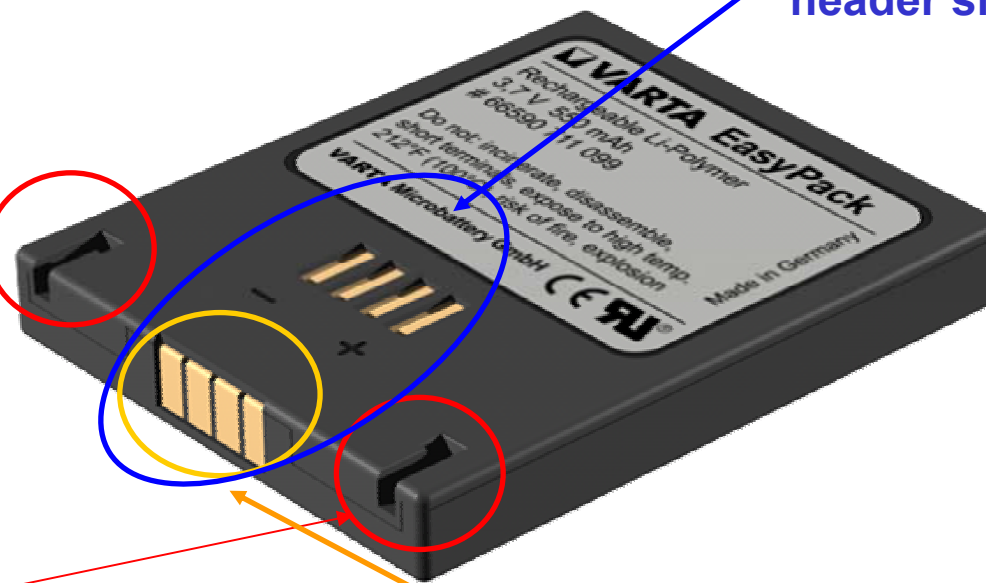
### “VARTA EasyPack” → The Battery

high energy, lowest weight and slim design

2 possible positions  
header side or large surface

L-Format Positioning and Fixation  
for 2-axis

UL, CE approval/recognition

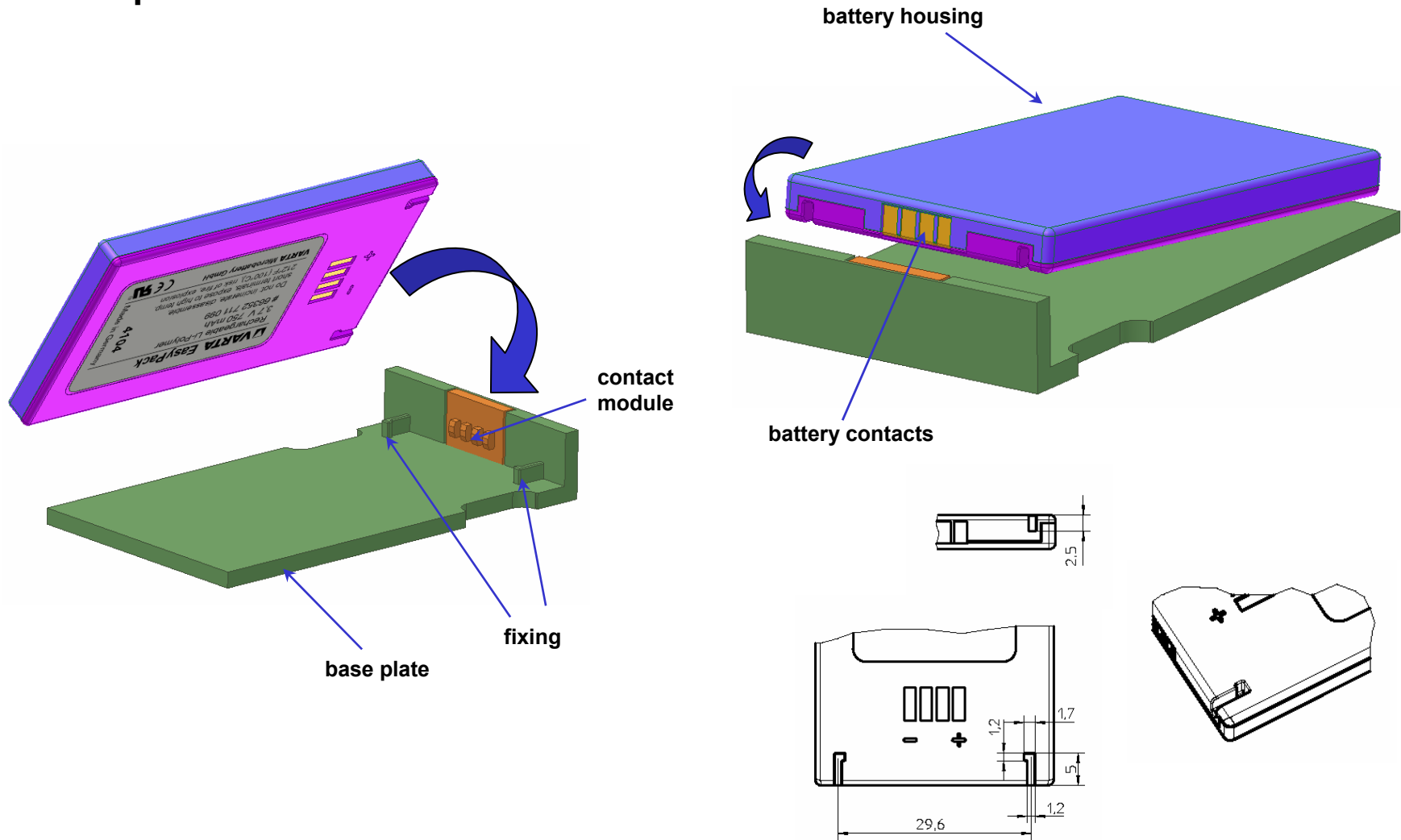


4 gold plated contacts  
Vbatt(+) - Terminal  
Vbatt(-) - Terminal  
Thermistor – Terminal (NTC)  
ID – Terminal (Identification)

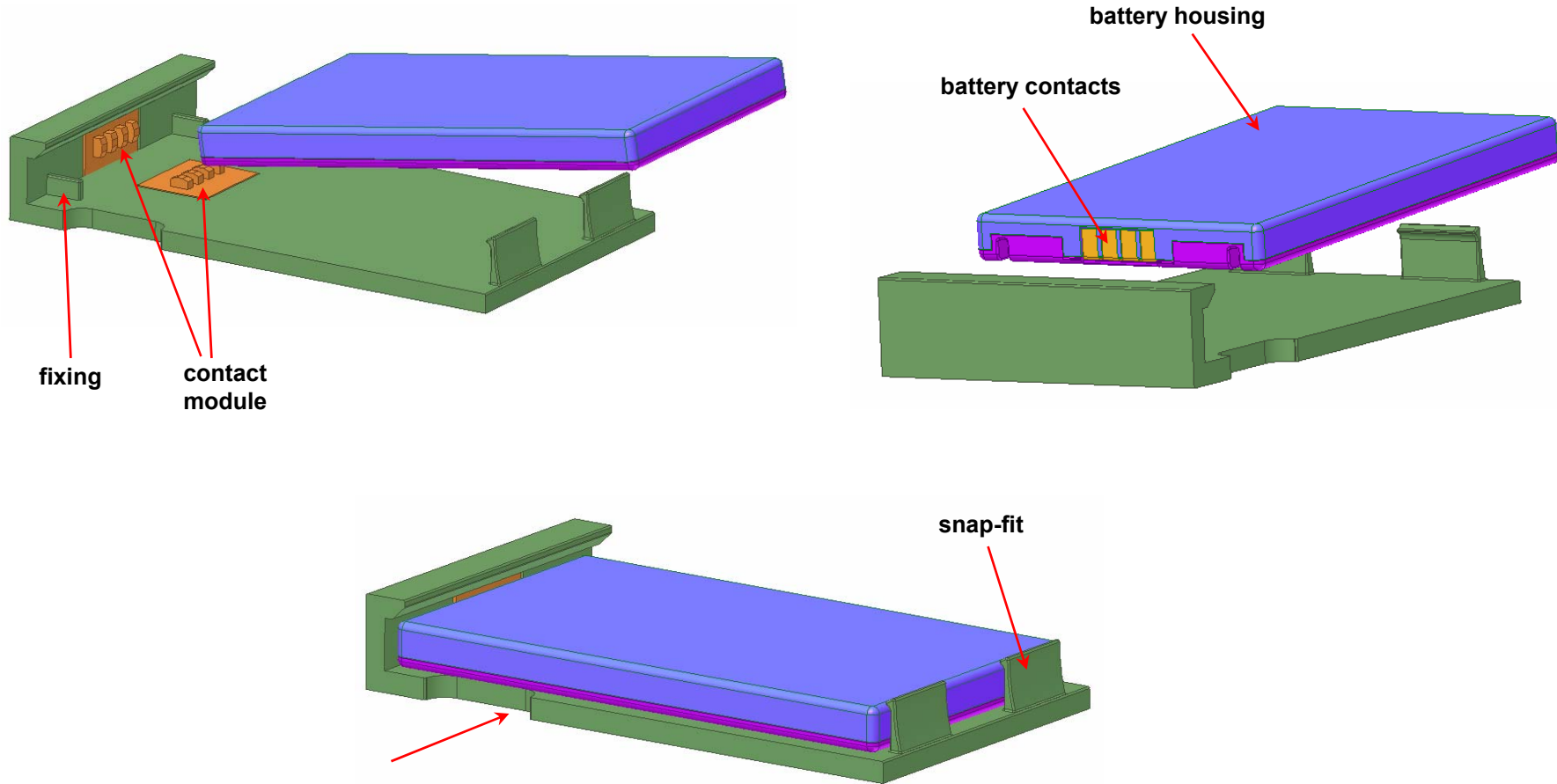
Patent pending

### VARTA EasyPack: example connecting to front / header

contact pitch: 2.5mm



Patent pending

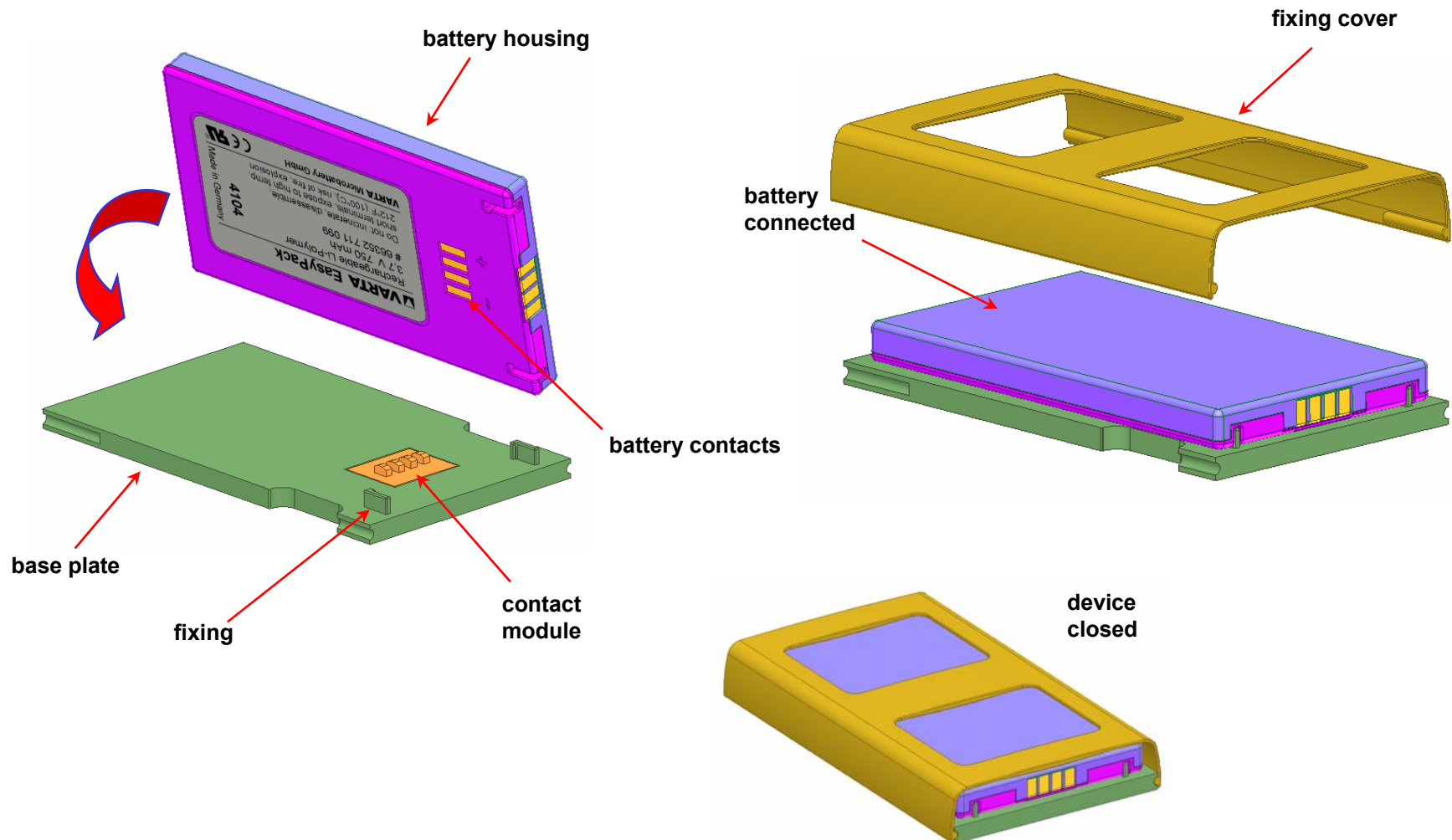
**VARTA EasyPack: example connecting to front / header****contact pitch: 2.5mm**

Patent pending



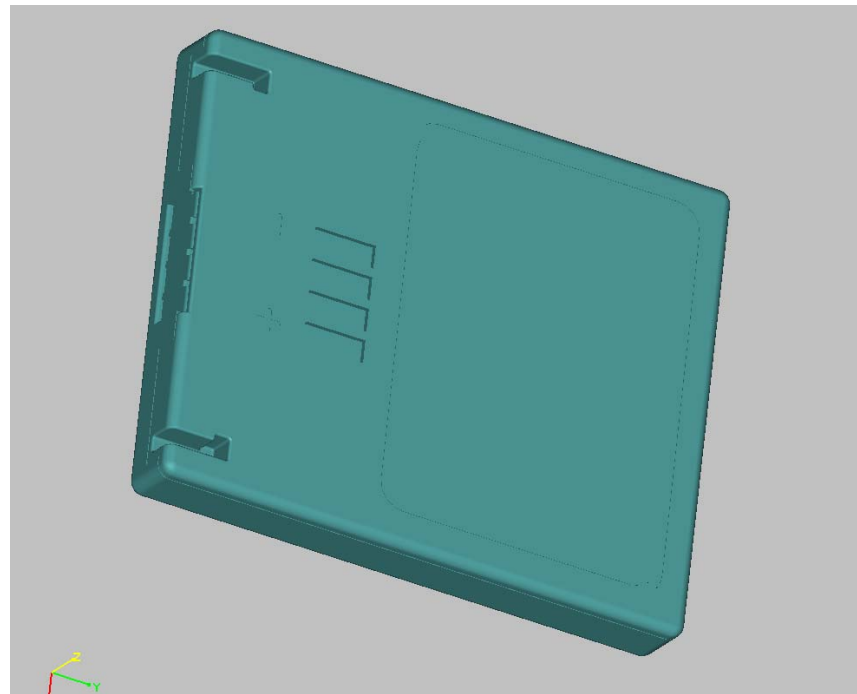
### VARTA EasyPack connecting to surface

contact pitch: 2.5mm



VARTA EasyPack → design in support

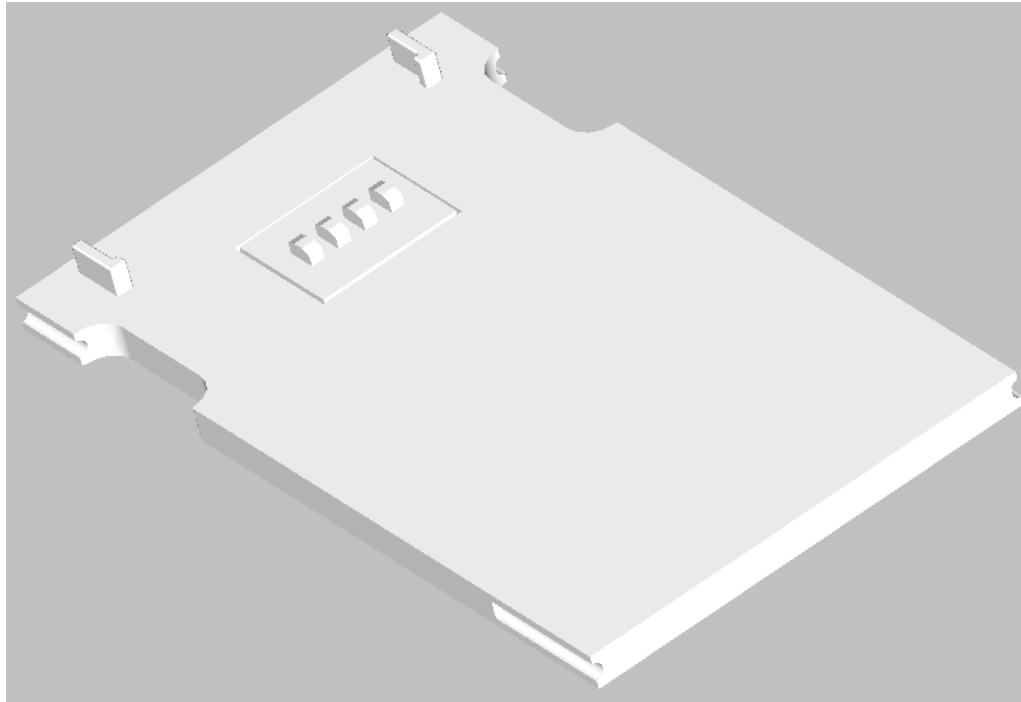
- 3 D data in „igs“ and „stp“ format of ALL EasyPacks available on request



- For proper design in ALSO the tolerances of the drawings from the respective EasyPack specification are needed.

VARTA EasyPack → design in support

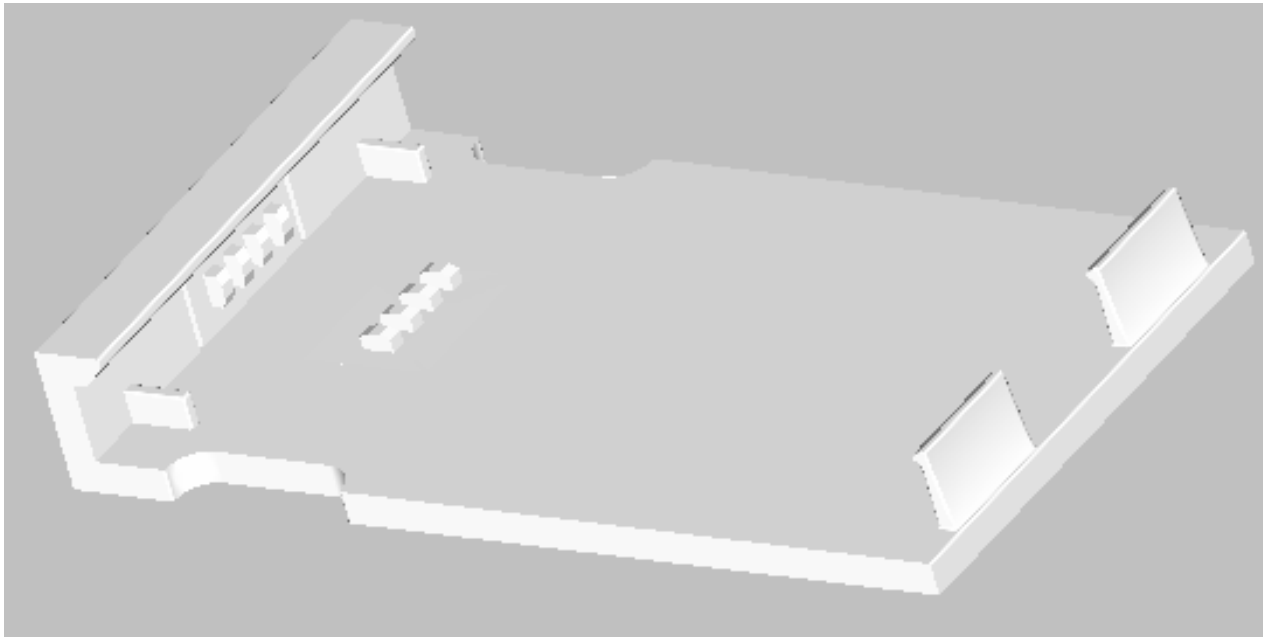
-3 D data for battery compartment draft on request



- For proper design in ALSO the tolerances of the drawings from the respective EasyPack specification are needed.

VARTA EasyPack → design in support

-3 D data for battery compartment draft on request



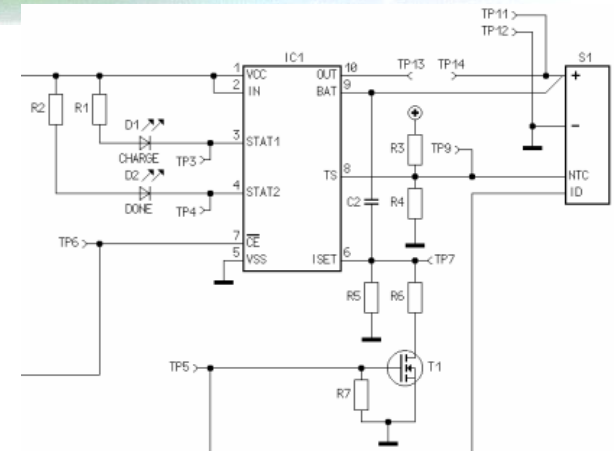
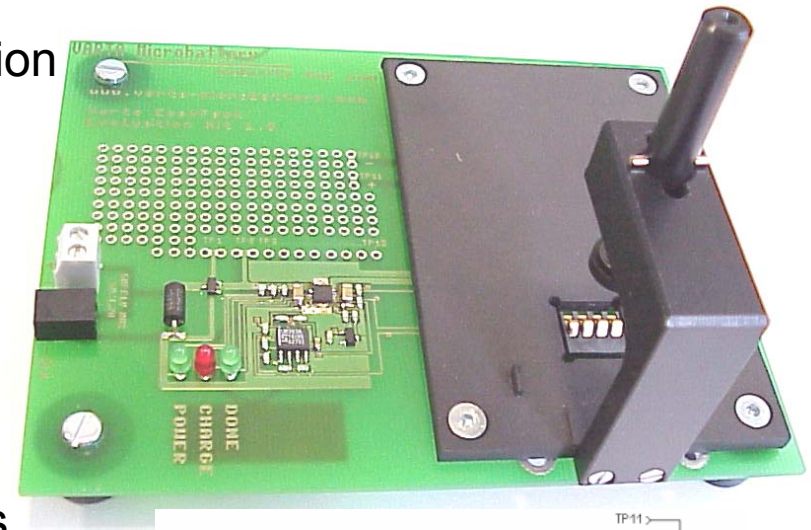
- For proper design in ALSO the tolerances of the drawings from the respective EasyPack specification are needed.

### VARTA EasyPack Evaluation Kit



## VARTA EasyPack Evaluation Kit

- Plug & Play charging solution based on TI bq 24014 charging IC
- Linear controller → no interference to the application
- fits all VARTA EasyPacks
- Input 5V, 1A
- Charging current 500mA/1000mA
- EASY access to IC test pins and battery contacts
- Additional breadboard space to mount individual components
- Blue prints and parts list available  
secure EASY and seamless integration to the application





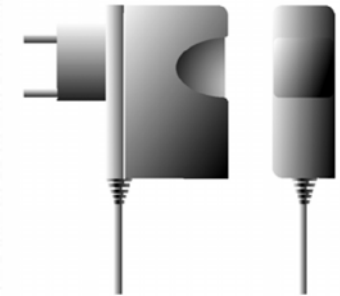
Off the Shelf Charging Solutions from VARTA Microbattery partner

[www.rrc-ps.com](http://www.rrc-ps.com)



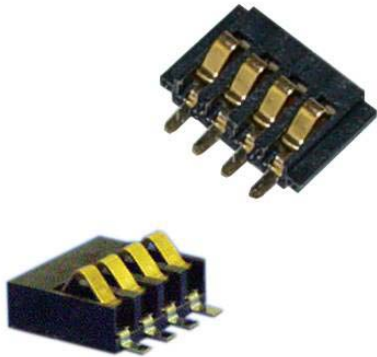
## EasyPack Charger Product Range Overview and Roadmap

- **EPC06WCxxx**
  - Pre-Defined Wall Plug Charger
- **EPC06WUxxx**
  - Universal Wall Plug Charger
- **EPC06DCxxx**
  - Desktop Charger
- **EPC06WPxxx**
  - Wall Plug Power Supply



**VARTA EasyPack: Examples of mating battery connector**

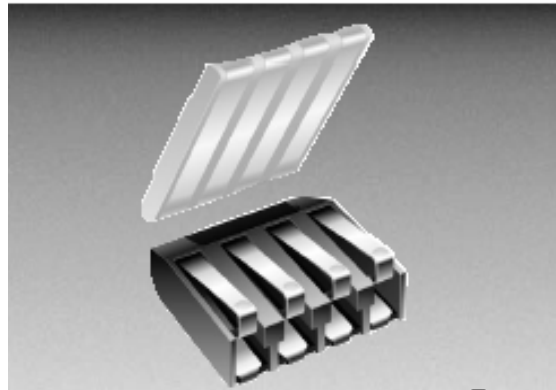
as standard component available

**SUYIN 2501...**

250105MR004G105ZU

250101MA004S400ZU

various others also available

**Bourns 70 AAM****AVX 9155 MOBO**



## VARTA EasyPack: Battery Connector as a standard component available

[www.avxcorp.com](http://www.avxcorp.com)

### 9155 MOBO™ Battery Connector



#### GENERAL DESCRIPTION:

The standard battery connector is specifically designed for mobile equipment.

The connectors are available in 3, 4, and 5 contact positions all on a 2.50mm pitch. The insulator height provides a 3mm spacing, with various contact nose heights from 1.20mm to 2.60mm, to provide spacing options to the end user.

All contacts are stamped and are rated to 3A, with plating options in Tin or Gold. Parts are supplied in tape and reel for automatic pick and place. Optional retaining brackets are available to provide greater strength when connected to the PCB.

Whatever your requirements, the 9155 series Battery Connector can also be customized to suit your application.



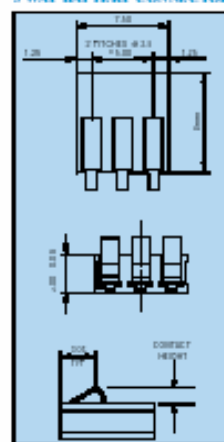
#### APPLICATIONS

- Mobile Phones,
- PDA,
- Medical,
- PMR,
- Industrial.

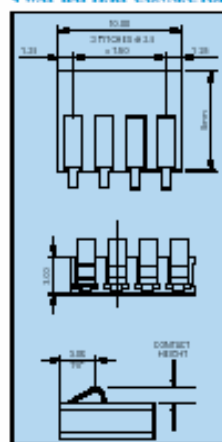
#### KEY FEATURES AND BENEFITS

- Suitable for 5000 mechanical cycles.
- Variety of contact heights offered to suit different mechanical designs.
- Connectors can be end to end stackable.

3 WAY BATTERY CONNECTOR



4 WAY BATTERY CONNECTOR

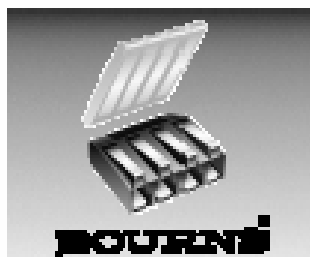


5 WAY BATTERY CONNECTOR



# VARTA EasyPack: Battery Connector as a standard component available

[www.bourns.com](http://www.bourns.com)



## Features

- 2.54mm pitch & height
- 2 to 6 precious metal contacts
- End-to-end stackable
- Twin hot contacts (symmetrical pad layout)
- Pick & place compatible
- High cycle life

## Applications

- Handheld communications - mobile phones, pagers, cordless phones, GPS, PDCs, radios
- Portable consumer equipment - PDAs, HPCs, notebook PCs, cameras, dictaphones, PDCs, games
- Component-to-board, SIM cards, etc.

## 70AA/Male - Modular Contact

### Materials & Finishes

Insulator... Glass reinforced thermoplastic, UL 94V-0 rated, black  
Contact... Copper alloy  
Finish  
Underplating... .005" - .010" nickel  
Contact Area... .005" Au over nickel

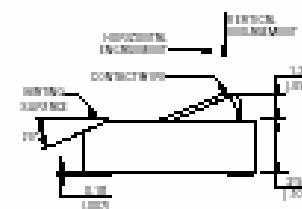
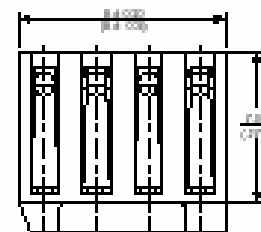
### Operating Characteristics

Electrical  
Current Rating... .3A/contact  
Voltage Rating... .50V  
Contact Resistance... 25mΩ max.  
Dielectric Voltage... AC 500V  
Insulating Resistance... 1000MΩ min.  
Operating Temperature... -55°C to 125°C  
Mechanical  
Normal Force... .80 grams min.  
Durability... 10,000 cycles min.

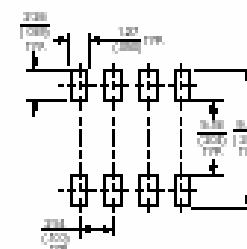
### How to Order

Model **70AA J - 4 - M 0 G**  
Terminal Style **J** = J-111T  
Number of Contacts (N) **4**  
Gender **M** = Male  
Type **0** = Standard  
Packaging Option **G** = Bulk  
**G** = Reformed Tape (750 pcs. per reel)

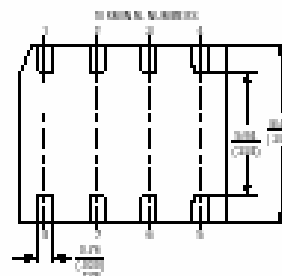
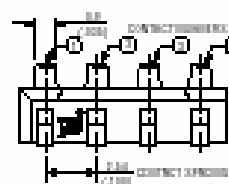
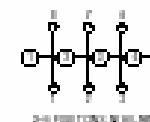
### Product Dimensions



### Recommended PWB Layout



### Electrical Schematic



## VARTA EasyPack: Battery Connector as a standard component available

**www.suyin.com**

