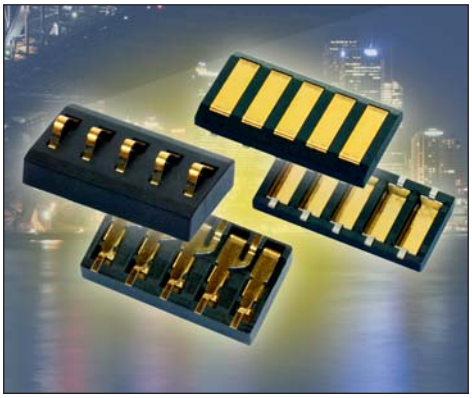
# Two-Piece 4.0mm Pitch Battery

## 9155-400

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



This unique battery or removable module style connector is different from most others in that it allows for the pluggable device to be swiped or connected from either direction. The spring contact offers enhanced contact deflection range over existing connectors in the market with a full 1.4mm of travel after contact engagement. This contact design allows the connector to absorb more of the plastic or housing tolerances making it more functional and reliable in real life applications.

The fixed pad connector is unique in the industry as a replaces the plating of gold directly onto PCB pads. The main benefit of using this connector is to elevate the pad surface well above the PCB so that the gold contacts are close to flush with the outside packaging. This minimizes the distance that a spring contact would need to absorb in the mating tolerance band. Also unique to this connector is the angled contact lead-in on both sides which facilitates smooth engagement of the spring contact from either direction.

## APPLICATIONS

- Portable electronics requiring a removable battery
- Interface for removable/pluggable modules or cartridges
- Docking cradle for charging and data transfer

## FEATURES AND BENEFITS

- Proven contact reliability in harsh industrial or medical applications
- Increased contact deflection range above existing connectors on the market
- Gold plated Beryllium contact spring contact assures maximum contact reliability and functionality up to 5000 cycles
- Beveled lead in on pad connector facilitates smooth module engagement from either direction

## ELECTRICAL

- Current Rating: 5A/contact
- Voltage Rating: 125 VAC

## ENVIRONMENTAL

- Operating Temperature: -40ºC to +125ºC

## MECHANICAL

- Contact Material: Spring contact is Be Cu, Fixed contact is Phosphor Bronze
- Contact Plating: Gold over nickel mating area, pure Tin SMT tails
- Durability 5000 Cycles

## HOW TO ORDER

**00** — **Prefix**

**9155** — **Series**

**005** — **Number of Ways**
002 = 2
003 = 3
004 = 4
005 = 5
006 = 6

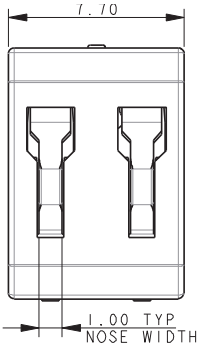
**40X** — **Standard Battery Connector**

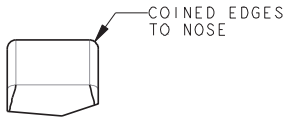
| Code | Description | Reel Qty. |
|---|---|---|
| 401 | Battery Connector - Sprung Half | 550 |
| 402 | Battery Connector - Fixed Half | 1100 |

**00X** — **Plating Option**
6 = 0.4µm Selective Gold, Pure Tin Tail
8 = 0.8µm Slective Gold, Pure Tin Tail

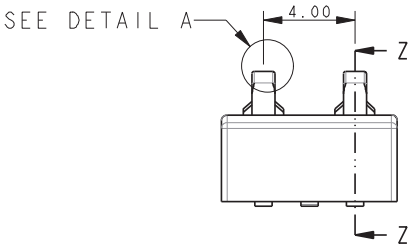
RoHS COMPLIANT

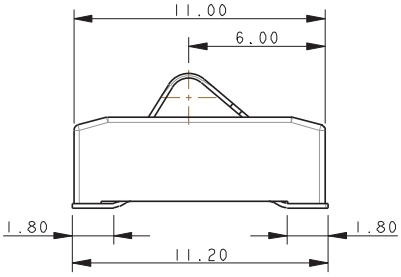
## 2 WAY BATTERY CONNECTOR – SPRUNG HALF

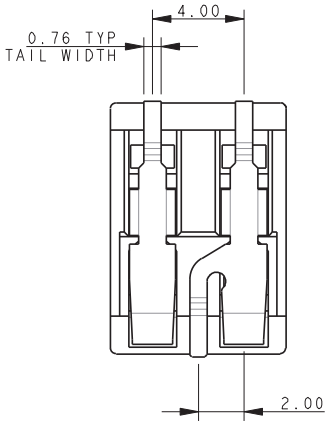


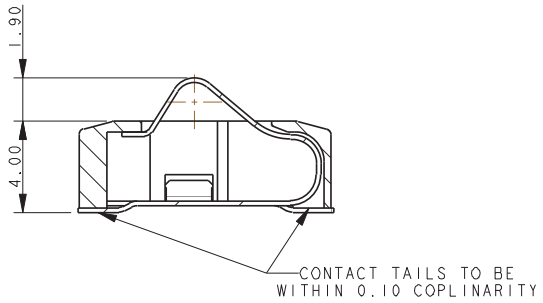




### DETAIL A

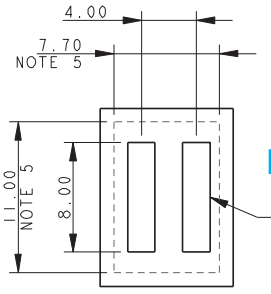


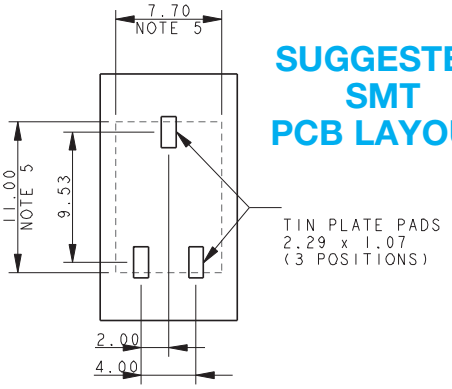




### SECTION ON Z-Z



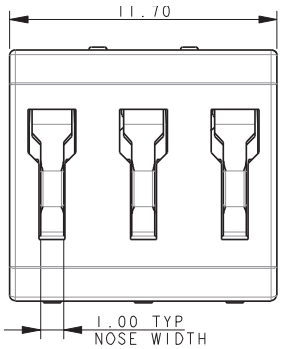

### SUGGESTED MATING PCB LAYOUT

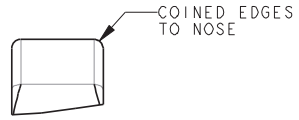



### SUGGESTED SMT PCB LAYOUT

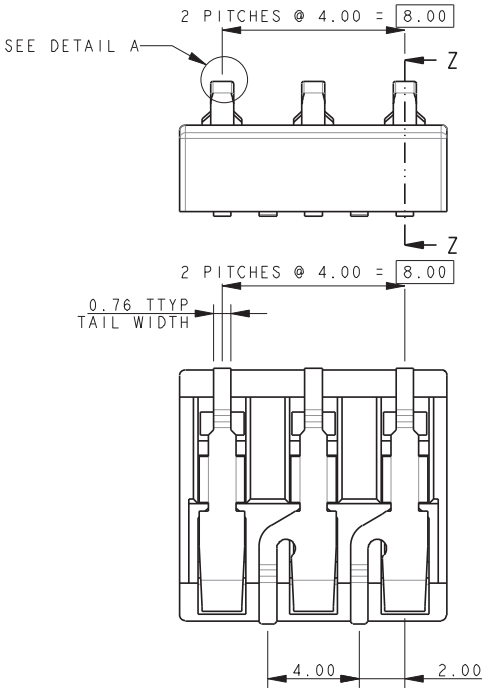
NOTES:
1. GENERAL TOLERANCE ±0.20 UNLESS OTHERWISE STATED.
2. FOR FURTHER DETAILS REFER TO AVX SPECIFICATION 201-01-207.
3. |ADDITIONAL INFORMATION AND BASIC MATING DETAILS REFER TO PAGES 12-14.
4. PACKING DETAILS ON PAGE 15.
5. CONNECTOR OUTLINE.
6. RECOMMENDED PLATING ON MATING PADS. GOLD OVER NICKEL.
7. FOR OTHER TAN VERTICAL MATING WE RECOMMEND MATING WITH THE FIXED CONNECTOR, REFER TO PAGE 13.

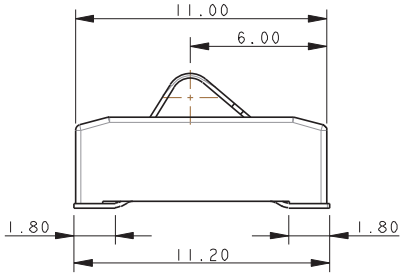
## 3 WAY BATTERY CONNECTOR – SPRUNG HALF

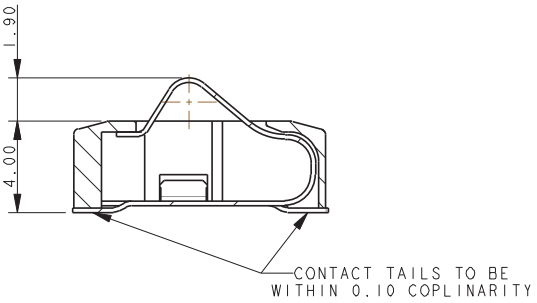


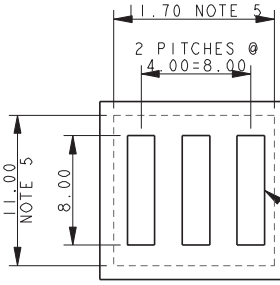

DETAIL A



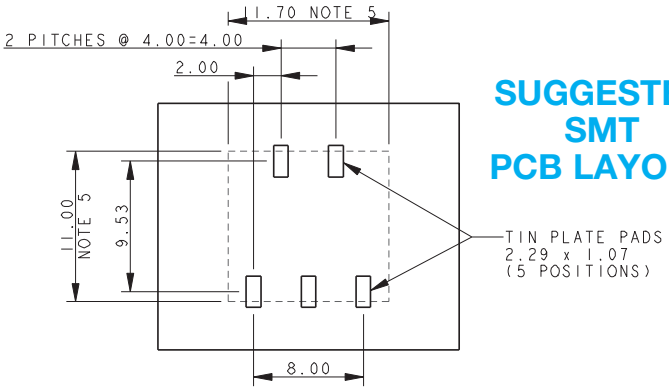




SECTION ON Z-Z




SUGGESTED MATING PCB LAYOUT




SUGGESTED SMT PCB LAYOUT

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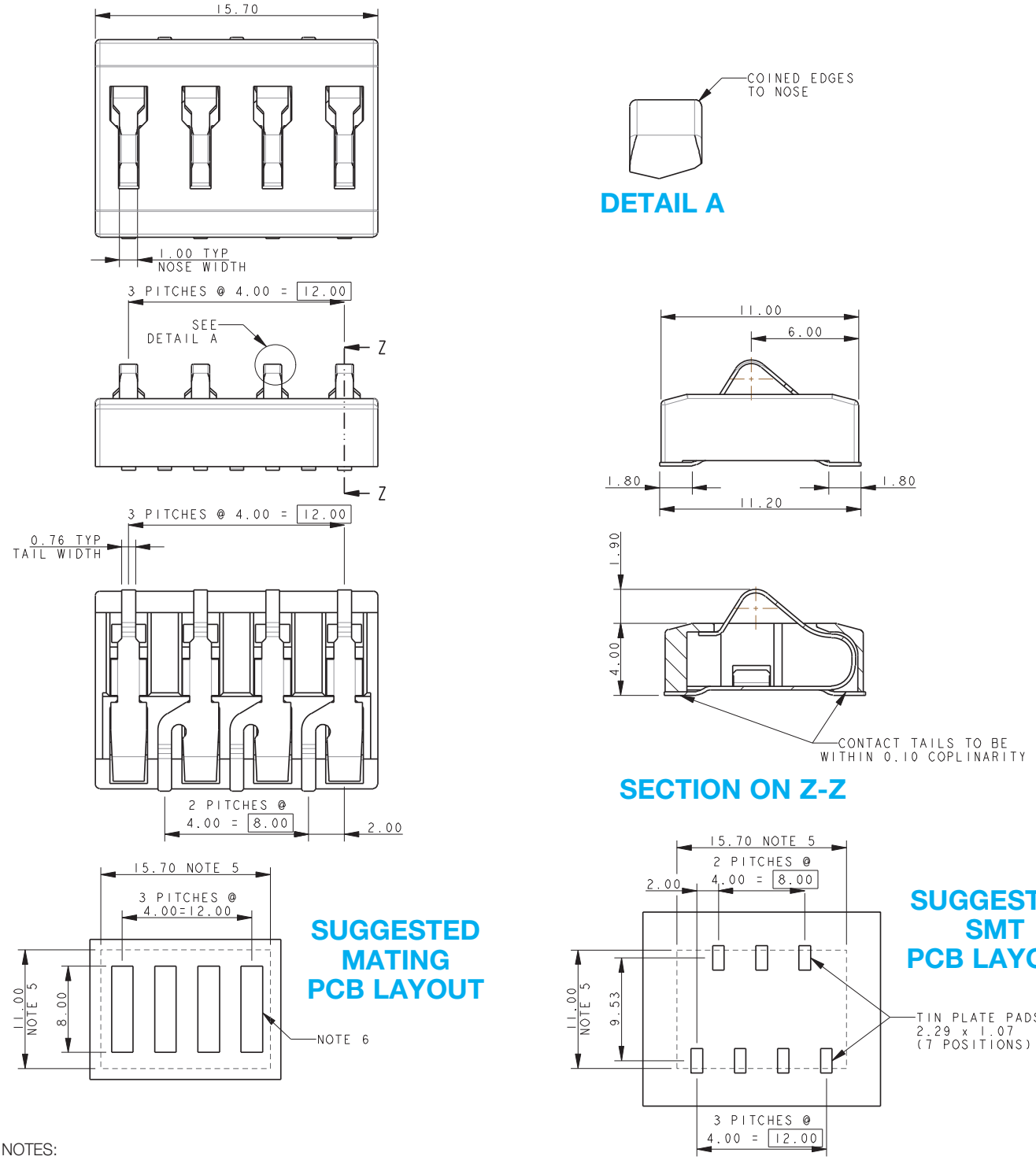
## 4 WAY BATTERY CONNECTOR – SPRUNG HALF




**SUGGESTED MATING PCB LAYOUT**

**SUGGESTED SMT PCB LAYOUT**

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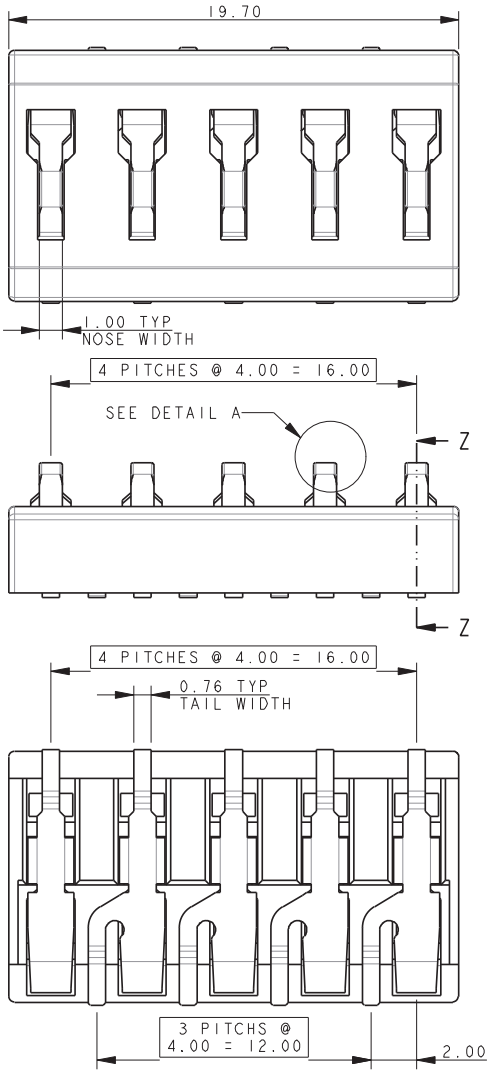
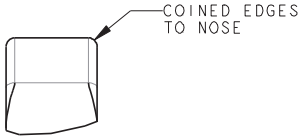
## 5 WAY BATTERY CONNECTOR – SPRUNG HALF

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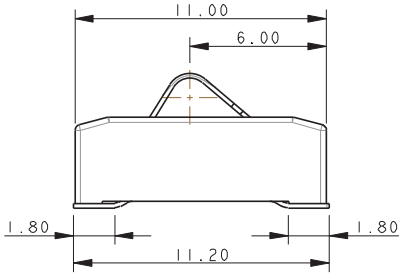
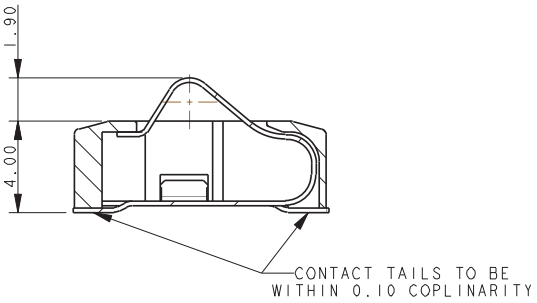
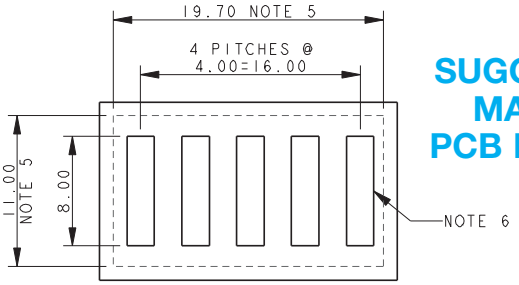



### SECTION ON Z-Z

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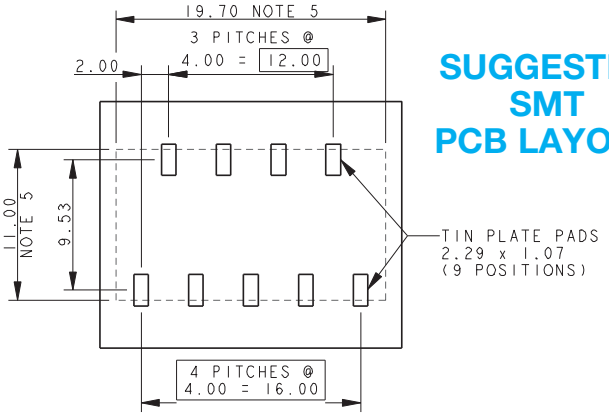


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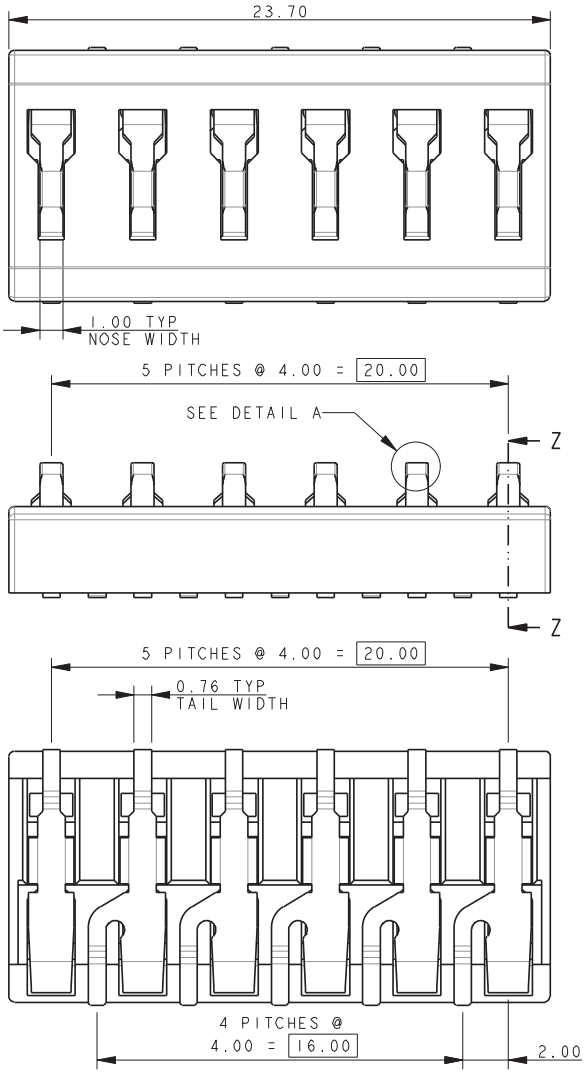
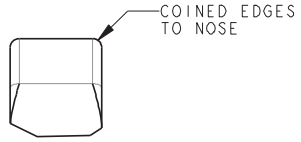
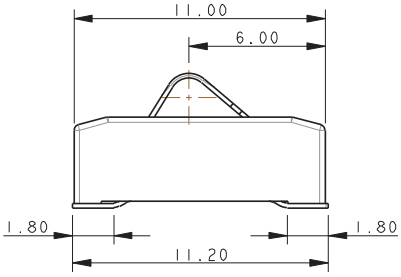
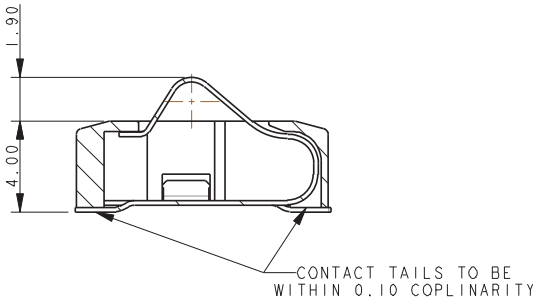
## 6 WAY BATTERY CONNECTOR – SPRUNG HALF



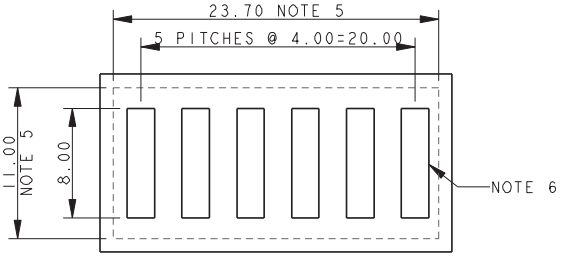

### DETAIL A



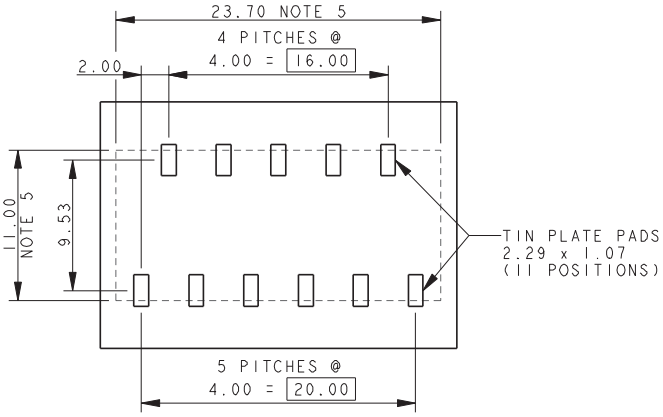




### SECTION ON Z-Z

### SUGGESTED MATING PCB LAYOUT




### SUGGESTED SMT PCB LAYOUT

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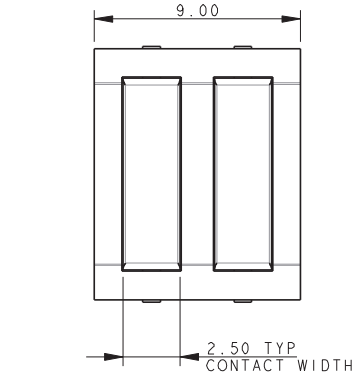
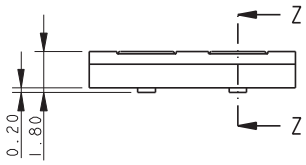
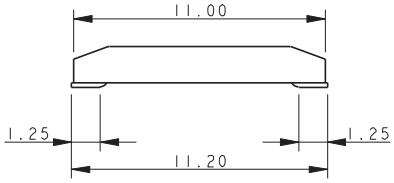
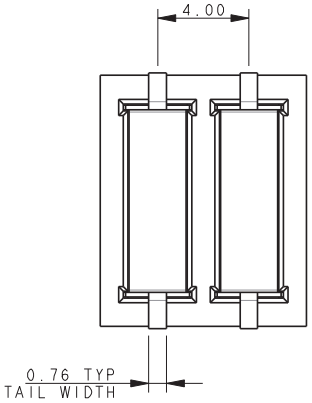
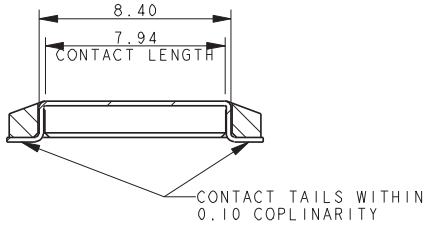
## 2 WAY BATTERY CONNECTOR – FIXED HALF OPTIONAL



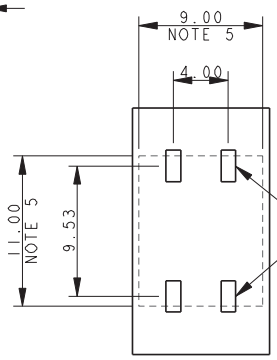




## SECTION ON Z-Z




## SUGGESTED SMT PCB LAYOUT

TIN PLATE PADS
2.50 x 1.30 (4 POSITIONS)

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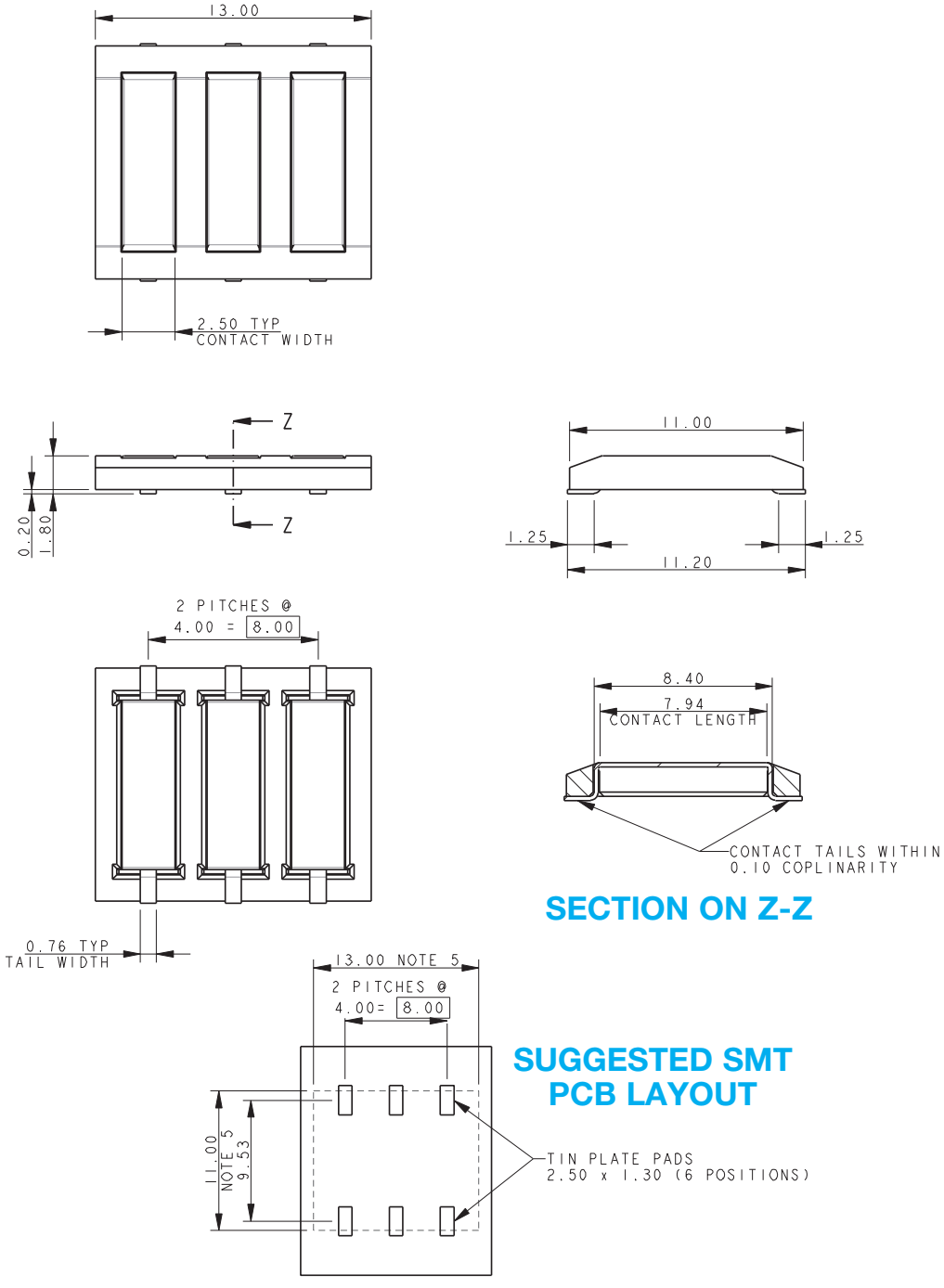
5. CONNECTOR OUTLINE.

## 3 WAY BATTERY CONNECTOR – FIXED HALF OPTIONAL




## SECTION ON Z-Z

## SUGGESTED SMT PCB LAYOUT

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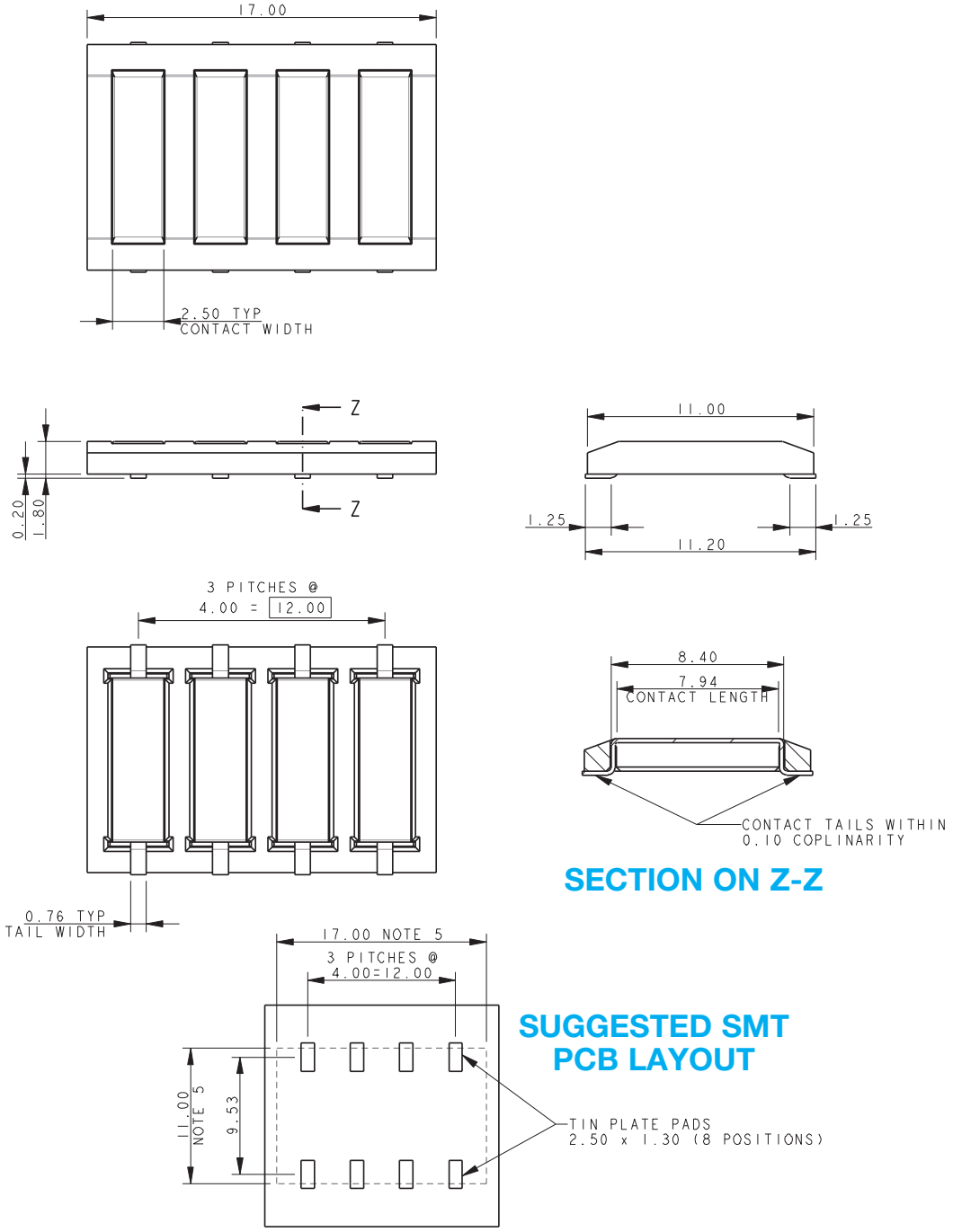
## 4 WAY BATTERY CONNECTOR – FIXED HALF OPTIONAL




## SECTION ON Z-Z

## SUGGESTED SMT PCB LAYOUT

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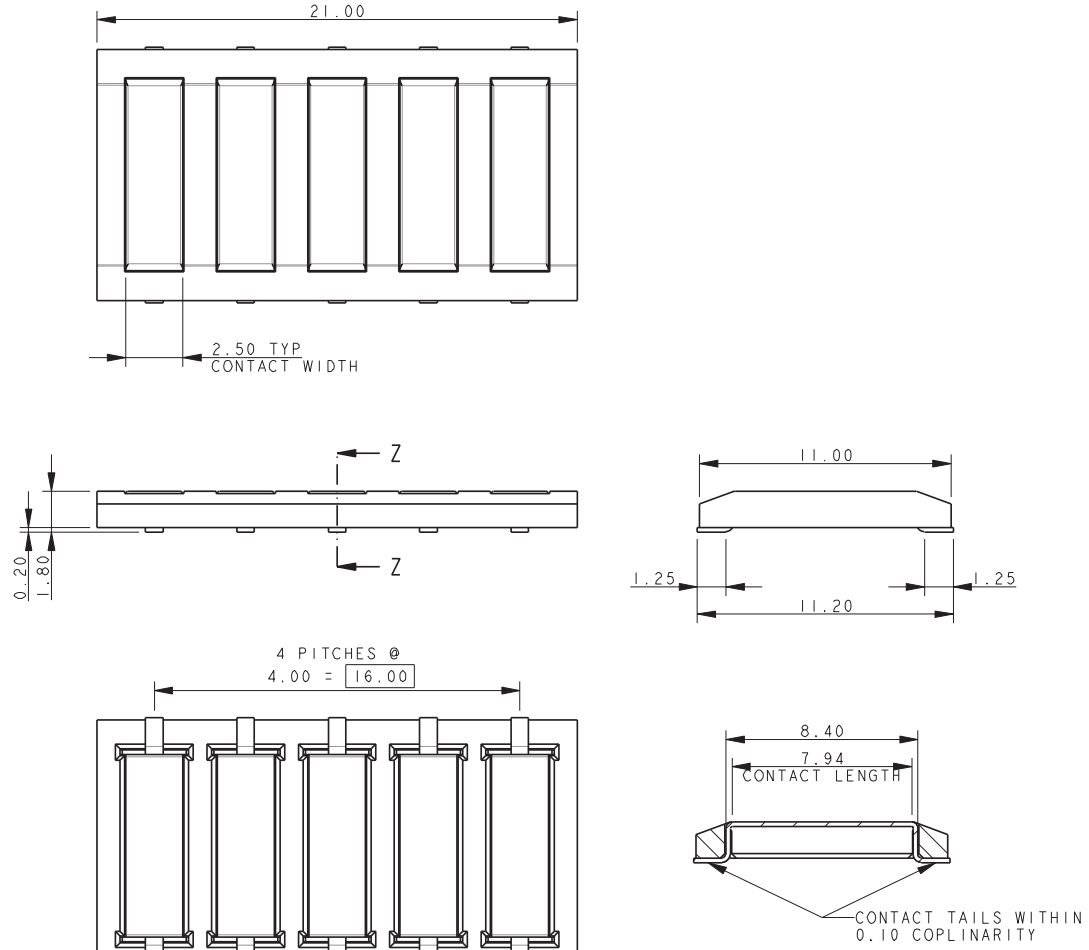
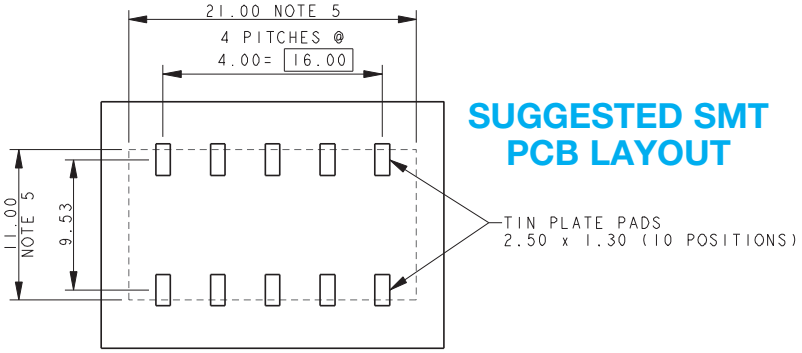
## 5 WAY BATTERY CONNECTOR – FIXED HALF OPTIONAL

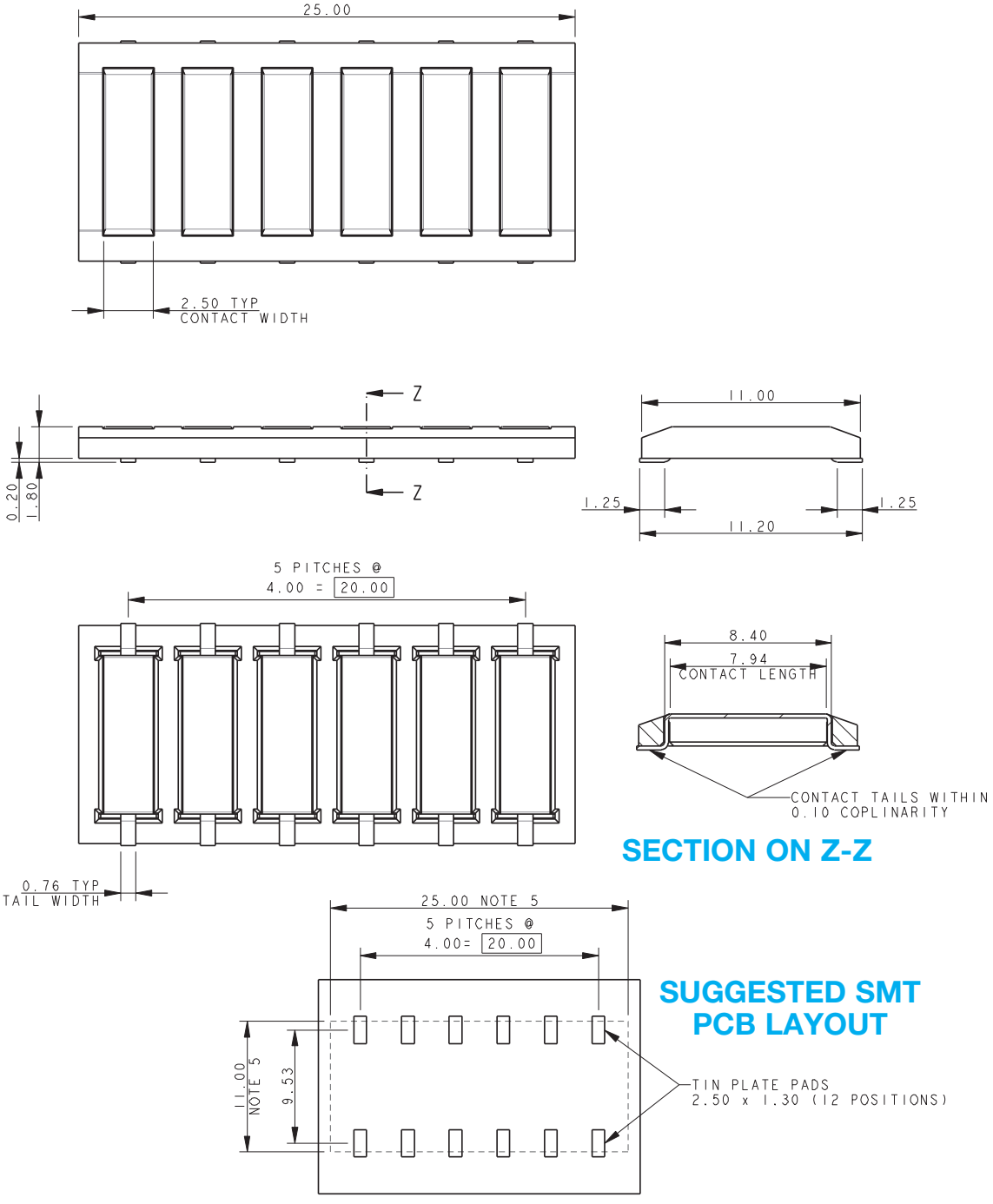



## SECTION ON Z-Z




## SUGGESTED SMT PCB LAYOUT

## 6 WAY BATTERY CONNECTOR – FIXED HALF OPTIONAL




## SECTION ON Z-Z

## SUGGESTED SMT PCB LAYOUT

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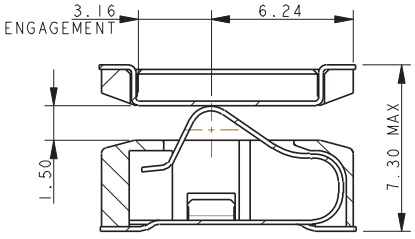
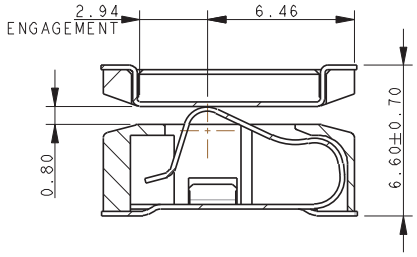
## BATTERY CONNECTOR - MATING DETAILS
## SPRUNG HALF MATED WITH FIXED HALF



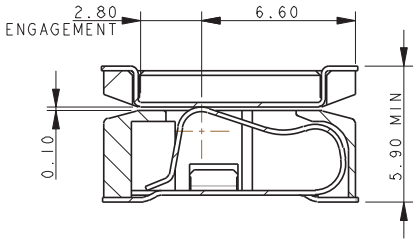

CONNECTOR ASSEMBLY
MAXIMUM GAP

PROJECTED CONTACT FORCE 0.67N




CONNECTOR ASSEMBLY
NOMINAL GAP

PROJECTED CONTACT FORCE 1.23N

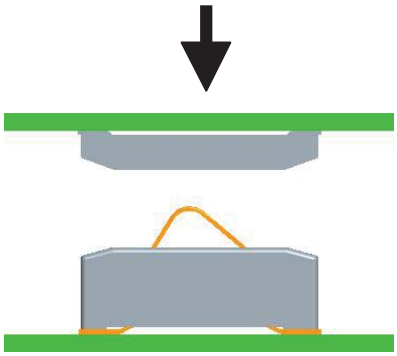



CONNECTOR ASSEMBLY
MINIMUM GAP

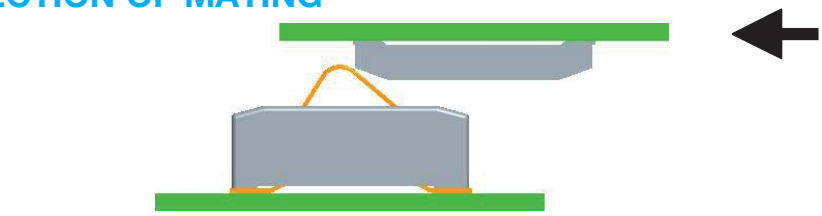
PROJECTED CONTACT FORCE 1.70N

NOTES:
1. GENERAL TOLERANCE ±0.20 UNLESS OTHERWISE STATED.
2. INSULATION MATERIAL: LCP, GLASS FILLED, UL94 V-0, COLOR BLACK.
3. CONTACT MATERIAL SPRUNG HALF: BERYLLIUM COPPER.
4. CONTACT MATERIAL FIXED HALF: PHOSPHOR BRONZE.
5. CONTACT PLATING: GOLD OVER NICKEL, PURE TIN TAILS.
6. DURABILITY 5000 OPERATIONS.
7. CURRENT RATING 5A.
8. CONTACT RESISTANCE 25mΩ MAX.

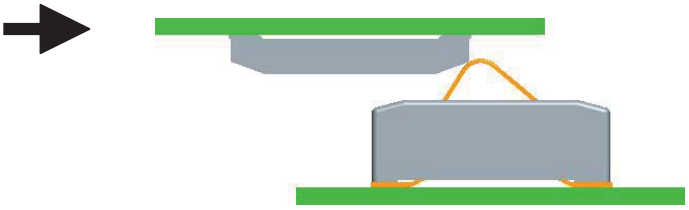
## BATTERY CONNECTOR - MATING DETAILS
## DIRECTION OF MATING



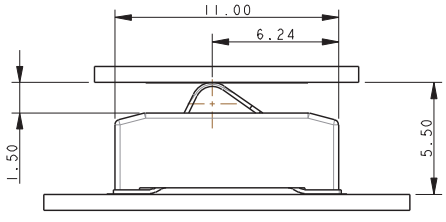
VERTICAL MATING



HORIZONTAL MATING - FROM EITHER END

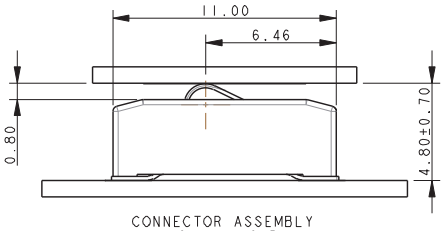


## BATTERY CONNECTOR - MATING DETAILS
## SPRUNG HALF MATED WITH PCB



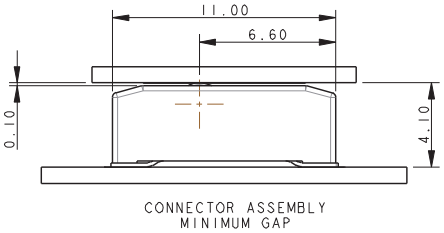

CONNECTOR ASSEMBLY
MAXIMUM GAP

PROJECTED CONTACT FORCE 0.67N




CONNECTOR ASSEMBLY
NOMINAL GAP

PROJECTED CONTACT FORCE 1.23N



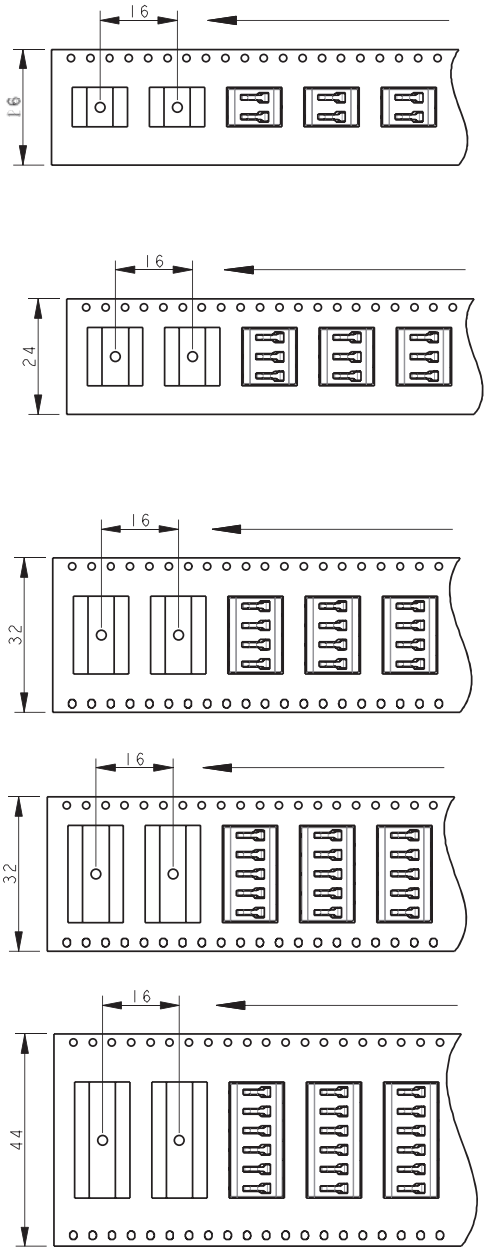

CONNECTOR ASSEMBLY
MINIMUM GAP

PROJECTED CONTACT FORCE 1.70N

NOTES:
1. GENERAL TOLERANCE ±0.20 UNLESS OTHERWISE STATED.
2. SPRUNG HALF MATED WITH GOLD PLATED PAD ON PCB
3. VERTICAL MATING ONLY.

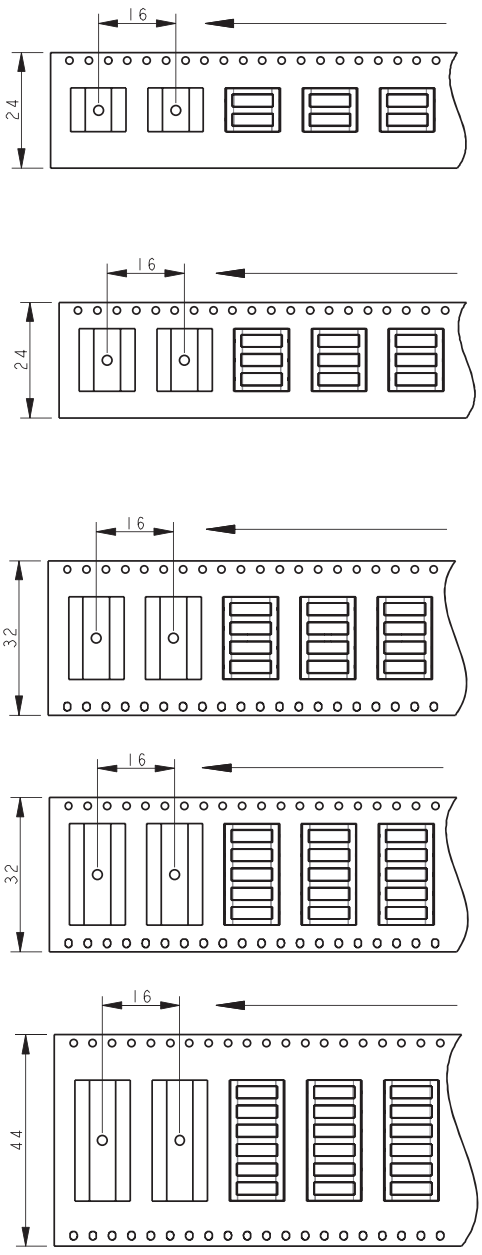
## BI-DIRECTIONAL BATTERY CONNECTOR - PACKING DETAILS

### PACKING DETAILS SPRUNG CONNECTOR

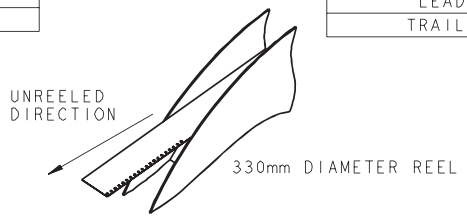



| | |
|---|---|
| REEL QTY | 550 |
| LEADER | 500mm |
| TRAILER | 500mm |

### PACKING DETAILS FIXED CONNECTOR




| | |
|---|---|
| REEL QTY | 1100 |
| LEADER | 500mm |
| TRAILER | 500mm |



LifeElectronics
Живое партнерство

**ООО «ЛайфЭлектроникс»** **“LifeElectronics” LLC**

*ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703*

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- *Техническую поддержку проекта.*
- *Защиту от снятия компонента с производства.*
- *Оценку стоимости проекта по компонентам.*
- *Изготовление тестовой платы монтаж и пусконаладочные работы.*

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