### **microPEM® TackSert®:** Reduces Installation Complexity and Assembly Time for High-Volume Orders

Switching from a thread forming screw to a TackSert® fastening solution allowed customer to increase the power output of their device without increasing product dimensions.



# CHALLENGE

Increased Power Output Demand for Electric Power Pack System

- Wasted PCB space from screw head
- Depth of aluminum casting for screw length
- Time-consuming screwing process
- Need reduced assembly time and cost
- Need tamper-proof, safety-critical solution
- Production for 8 global locations

## SOLUTION

#### microPEM® TackSert

- Alternative to micro screws, eliminating cost of threaded hardware
- Simple, clean press-in installation – no heat or ultrasonics
- Top sheet can be any material
- Low profile head fits where screws can't
- Non-removal ensures Tamper evident
  applications



## RESULTS

# TackSert<sup>®</sup> delivered 80+% reduced keep-out space on PCB (9mm vs. 1.8mm)

- 50% reduction install time (1.5s vs. 3s)
- 70% reduced engagement length (3mm vs. 10mm)
- 89% reduced head height (0.27mm vs. 2.52mm)
- Retention force exceeded by 50+% (200N vs. 415N)
- Met cleanliness requirements
- Global support for all customer locations



### **PennEngineering**®