CASE STUDY 09 – Rugged System



Man Portable Fanless Embedded System



ELECTRONIC

Collaborative engineering approach with the customer

THERMAL

Simulation

manufacture

 Internal thermal layout considerations

Selection of Materials and

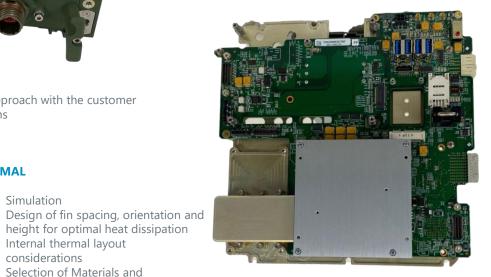
height for optimal heat dissipation

manufacturing techniques for best thermal path versus design for

- Signal Integrity considerations
- Power distribution
- motherboard design
- Power conversion
- EMC filtering
- **RF** Shielding

MECHANICAL

- Optimised for low weight versus Thermal performance
- Packaging a combination of bespoke and COTS modules
- RF and EMC separation features
- Rugged design to meet Mil-Std-810F for shock and vibration requirements
- IP67 sealing



PRODUCTION

- Volume production
- Design for manufacture
- Modular design
- HASS
- ESS
- Product Acceptance Testing
- Software programming

QUALIFICATION

- Full qualification program
- Thermal cycling
- Shock and Vibration
- Moisture ingress/sealing
- Solar radiation
- EMC
- First Article inspection in accordance with AS9100

