

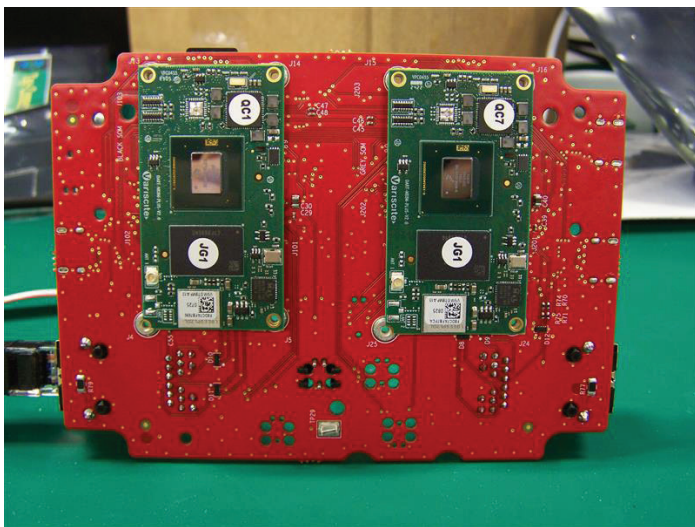
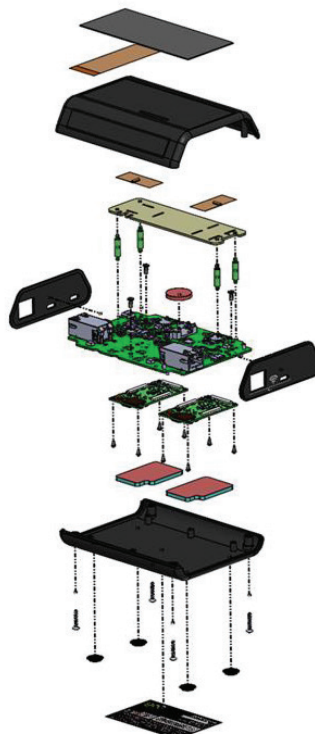
Aegis R52L: Laptop Enhanced Retransmission Device

Low-cost, easy-to-use Enhanced Retransmission Device (ERD) that meets CSfC Mobile Access Capability Package (MACP) requirements for connecting End User Devices (EUDs) to untrusted networks

Connecting to untrusted (black) networks is a requirement for most EUDs, but these networks are inherently risky. By placing an ERD between the EUD and the untrusted network, devices and data can be better protected.

Observations

- Incorporate lessons learned and user feedback from Cog Systems' Aegis R51 product
- Use of software on a module concept to create hardware isolation (Cog Systems' Solitaire prototype)
- Aegis R52L proof-of-concept hardware (10 units built)
- Initial ERD software flashed and end-to-end data transfer



2025 Aegis R52L proof-of-concept construction



Key Features

Two chipset approach to provide enhanced hardware isolation between WAN (network and ERD) and LAN (ERD and EUD)

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Aegis R52L – Top View

The Aegis R52L is the next step in the evolution of the Aegis Enhanced Retransmission Device (ERD) product line. The R52L is a laptop-centric ERD with multiple methods of connecting End User Devices (EUD) to untrusted networks (WiFi, ethernet, USB).

Next Steps

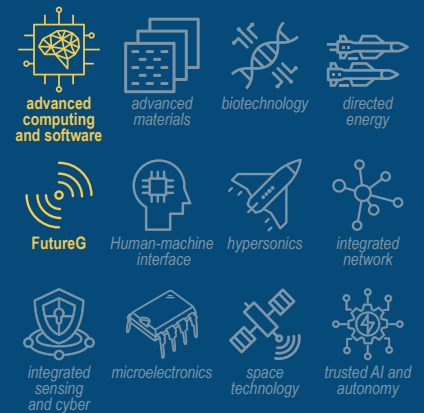
- Further hardening of ERD software
- Over-the-air device management
- Onboard VPN



Aegis R52L – Wide Area Network Side View



Critical Tech Areas



DoD 17 Priorities



1. Southwest Border Activities
2. Combating Transnational Criminal Organizations in the Western Hemisphere
3. Audit
4. Nuclear Modernization (including NC3)
5. Collaborative Combat Aircraft (CCAs)
6. Virginia-class Submarines
7. Executable Surface Ships
8. Homeland Missile Defense
9. One-Way Attack/Autonomous Systems
10. Counter-small UAS Initiatives
11. Priority Critical Cybersecurity
12. Munitions
13. Core Readiness, including full DRT funding
14. Munitions and Energetics Organic Industrial Bases
15. Executable INDOPACOM MILCON
16. Combatant Command support agency funding for INDOPACOM, NORTHCOM, SPACECOM, STRATCOM, CYBERCOM, and TRANSCOM
17. Medical Private-Sector Care