Electromagnetic Interference (EMI) Backshells for Cables

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Situational Summary

- The National Surface Warfare Center's Crane Division Technology has created an EMI protective backshell for cables.
- The technology has a small niche market and the strategy for commercialization has not yet passed military applications.
- The backshells are currently installed in the EA-18G aircraft platform.
- The need for this technology came from the inability of the highest grade EMI backshells(Mil Spec 461) to provide efficient shielding protection.
- They could possibly be fielded in similar aircraft in the future such as F18's or Super Hornets with the inception of a newer platform similar to the EA-18G's

Synopsis

- **This invention is a protective backshell and casing for electrical cables that protects against EMI**
- **EMI (electromagnetic interference) occurs when two electrical signals cross paths and one signal acts as an antenna and draws in the signal of another source causing distorted results.**
- **It is needed in military applications such as surveillance, radar, ships, planes and control rooms.**
- **It was developed independent of outside companies exclusively for the EA-18G aircraft platform**

Competitive Advantage

- These backshells are held to standards higher than Mil Spec 461 making them more effective at shielding EMI than any military or commercial EMI protective backshell in America.
- Its shielding effectiveness is 95% or higher and it has been through 6 iterations of testing.
- The EMI protective backshell is effective enough to jam any signal on the planet.
- This backshell is made of aluminum instead of composites

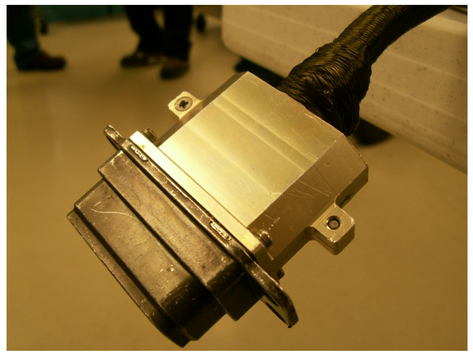
Competitors

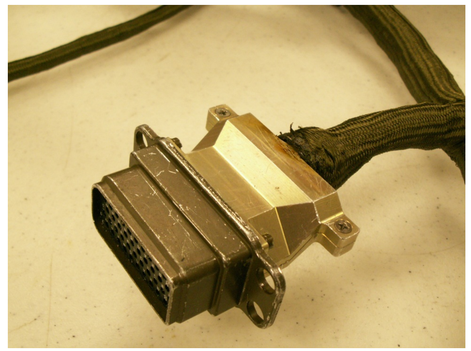
Competitors
Glenair
TE Connectivity
Amphenol
Bendix

Potential Applications

Industry	Industry Segments	Application Segments
A. US Military (Primary Market) B. US Alliance Partners	1. Radar, Surveillance	Control room equipment, Large scale video and infrared monitoring, Electronic jamming
C. Medical (Potential Application)	1. Large scale medical equipment	Magnetic Resonance Imaging (MRI), CT Scanners, LCD's

Images





Keys from Inventor

- **Contained in the EA-18G aircraft pod**
- **Over $300,000 spent on R&D**
- **Potential high margin- $250 cost for the entire assembly**
- **Attempts have been made to license but no progress.**

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