

## HALCYONLINK™

### Revolutionary interference cancellation products protect tactical communications during electronic warfare (EW) missions

With L3Harris' HalcyonLink, warfighters no longer have to choose between their EW mission and communication lifeline – they can have both. HalcyonLink's demonstrated life-saving technology uses L3Harris' proven digital interference cancellation to protect vital communication links from radio frequency (RF) interference without compromising the mission.

#### ENABLING SIMULTANEOUS COMMUNICATIONS AND EW

The nature of modern combat drives tactical vehicles to continually increase the number of systems that compete for access to the RF spectrum. RF energy from on-board transmitters, such as EW systems, can degrade nearby communication channels to below useful levels. Often, the result is that EW and communication systems cannot be used simultaneously.

HalcyonLink's interference cancellation technology collects a sample of the interfering system's transmission and uses this sample to create an equal and opposite copy of the interference. This anti-interference is then added to the protected radio's receive path. The interference and anti-interference cancel each other out, leaving the desired reception intact. HalcyonLink can cancel undesired signals by more than 80 dB, restoring communications links to operationally useful ranges.

HalcyonLink was purpose-built for the rigors of tactical vehicle operation in combat, including harsh environmental, electromagnetic interference and vehicle power conditions. It handles real-world conditions, like multipath and vehicle movement, and it rapidly adapts to changing conditions. It was designed from the beginning to be extremely easy to use, with just a single ON/OFF switch as the only front-panel control.

#### UNMATCHED INTERFERENCE MITIGATION LEGACY

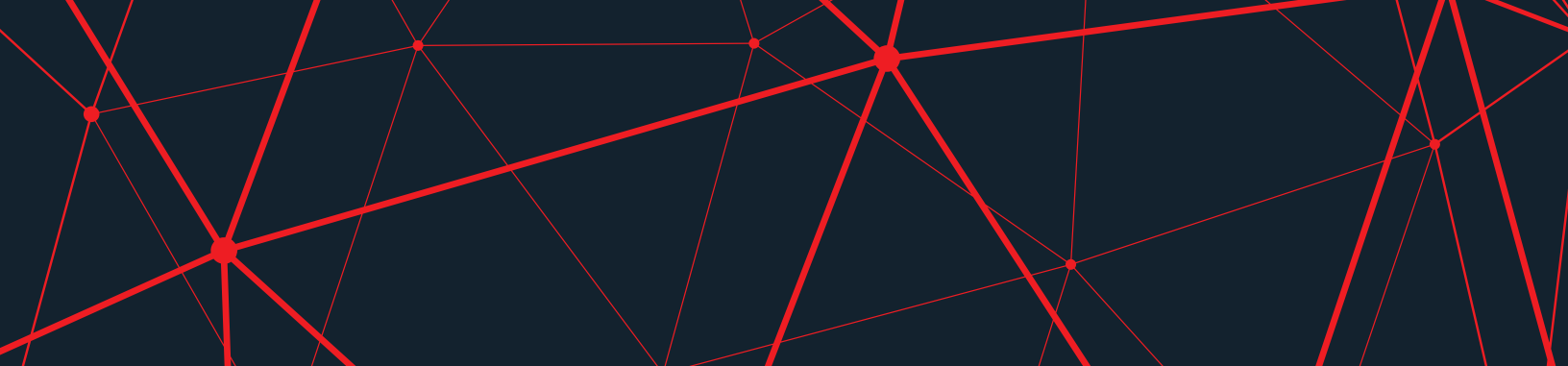
L3Harris has been solving the hardest RF interference problems with interference cancellation for over 50 years. HalcyonLink was born of the Advanced Interference Mitigation System (AIMS), which is the latest form of L3Harris' continued evolution in interference cancellation capability. AIMS provides a standard architecture with common building blocks for rapidly delivering virtually any level of interference cancellation solution.

With AIMS and HalcyonLink, L3Harris offers revolutionary interference cancellation performance that "just works" in the real world.



#### DESIGNED FOR MAXIMUM SIMPLICITY IN OPERATION

- > ON/OFF switch is only front-panel control
- > Control software with graphical user interface (GUI) for pre-mission configuration
- > Automatic bypass when radio transmits
- > Failsafe bypass in event of power off or failure
- > No calibration needed
- > Negligible impact to EW system output
- > Minimal impact to receiver sensitivity in low-interference conditions



## HALCYONLINK CALMS THE STORM

Communicating in the noise of a modern battlefield can seem like fighting all the chaos of a raging tempest. HalcyonLink calms the storm of RF interference and restores clear communications. It does this by ensuring critical communications lifelines remain intact and interconnected when operating in harsh interference environments.

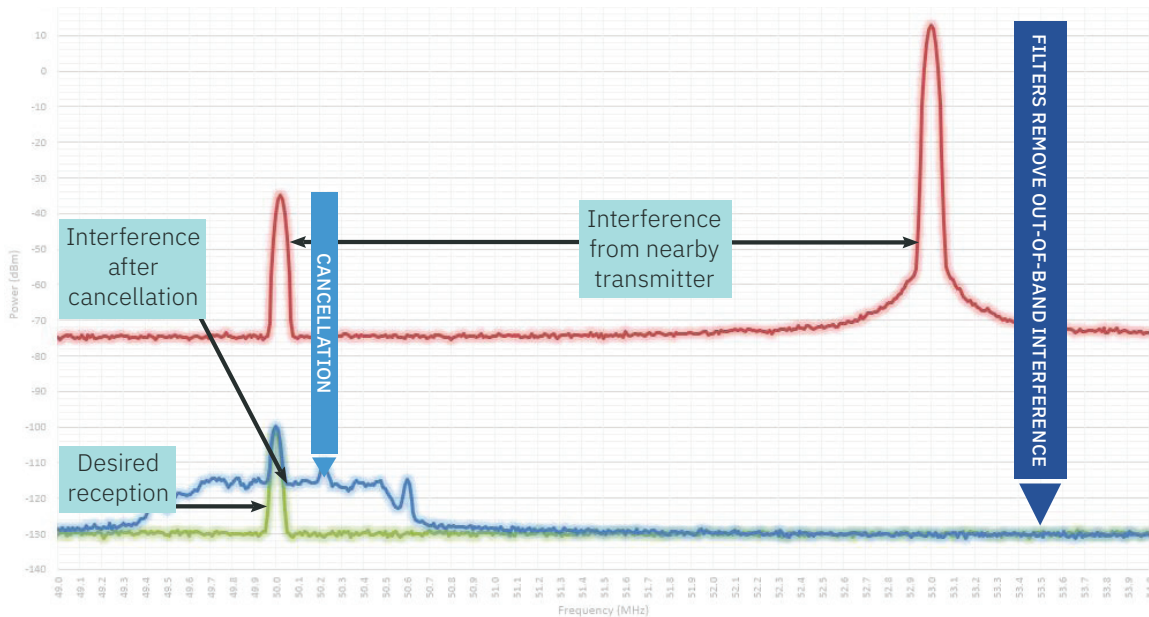
L3Harris brings to bear over 50 years of real-world operational and deployment success ensuring missions can be executed in dynamic environments where spectrum availability is critical. L3Harris' HalcyonLink protects vital communications links without compromising the mission.

## KEY FEATURES

- > **80+ dB cancellation of in-band signals**
- > **140+ dB rejection of out-of-band signals**
- > **Two versions:**
  - VHF**
    - 30-88 MHz
    - 1 MHz bandwidth
  - UHF**
    - 225-400 MHz
    - 8 MHz bandwidth
- > **<50  $\mu$ s retune time**
- > **Dimensions: 3.4" x 8.75" x 11"**
- > **<55 W power consumption**

## PURPOSE-BUILT FOR TACTICAL VEHICLE APPLICATIONS

- > MIL-STD-188 environment
- > MIL-STD-1275 power
- > MIL-STD-461 EMI



HalcyonLink cancels undesired signals by more than 80 dB

### HalcyonLink™ Sell Sheet

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