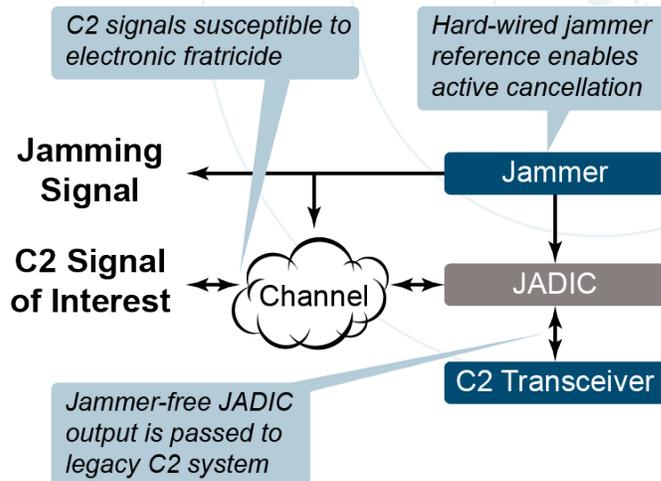


JOINT ANALOG DIGITAL INTERFERENCE CANCELLATION (JADIC)



TrellisWare
TECHNOLOGIES



HIGH DYNAMIC RANGE, TETHERED INTERFERENCE CANCELLATION

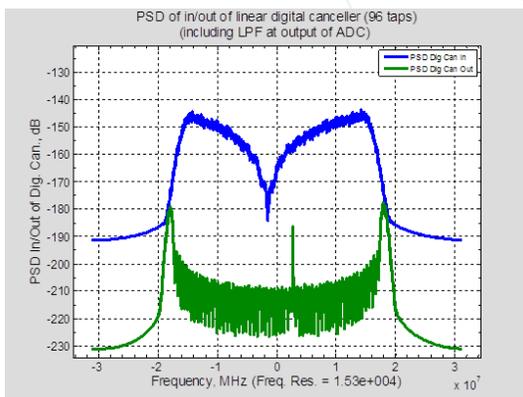
To avoid the threat of improvised explosive devices (IEDs) in hostile areas a jammer is often used. Jammers like the CREW Vehicle Receiver/Jammer (CVRJs) are designed to prevent the detonation of IEDs and help save lives. CVRJ's counter existing and evolving Radio Frequency (RF) threats, but often interfere with the reception of blue force communications. The large power a jammer produces in the blue force communications bandwidth can prevent desired communications. This reduces the effectiveness and responsiveness of the vehicle crew.

The TrellisWare Joint Analog and Digital Interference Cancellation (JADIC) system eliminates electronic fratricide for systems on the same vehicle as the CVRJ. Using a combination of linear and low noise analog interference cancellation and high speed performance digital interference cancellation, JADIC eliminates the jammer from the signal received by the blue force communication system. The JADIC system self-configures, without the need of information from the blue force communication system and can be fully trained for a mission in less than three seconds. The system enables full duplex communication and is largely independent of the jammer waveform. With rapidly adapting cancellation, JADIC enables missions in highly dynamic environments where systems like the CVRJ are frequently used.

The JADIC system enables blue force communication systems to operate almost as if there were no jammer present, without compromising the ability of the jammer to suppress the IED detonation.

JADIC PERFORMANCE

- Frequencies • UHF SATCOM Band (240-270 MHz)
- RF Bandwidth • 30 MHz
- Suppression Capabilities • > 100 dB with +20dBm of jammer power at radio antenna
• > 110 dB with +5 dBm of jammer power at radio antenna
• Less than 0.6 dB impact to jammer transmitted power
- Noise Figure • Less than 9 dB
- Prime Power • 19-34 Vdc
• Less than 2.2A



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