

SOLUTION BRIEF

REDCOM SIGMA® XRI-400 FOR THE AIR DOMAIN

In line with the United States Air Force's Agile Combat Employment (ACE) concept, REDCOM developed Sigma® XRI-400, a full-featured C2 platform that delivers voice, video, chat, and radio interoperability in a single box.

REDCOM Sigma XRI-400 consists of a small form factor purpose-built platform with four radio ports, all powered by REDCOM's flagship Sigma C2 software. This solution delivers the following key benefits:

REDCOM SIGMA® SOFTWARE

- C2 software platform with voice, video, and chat
- Easy to use: intuitive UI reduces training and ramp-up time
- Built in conferencing engine brings together any endpoint
- On the DoDIN Approved Products List
- Engineered to adhere to today's cybersecurity standards including FIPS 140-2

REDCOM SIGMA® XRI

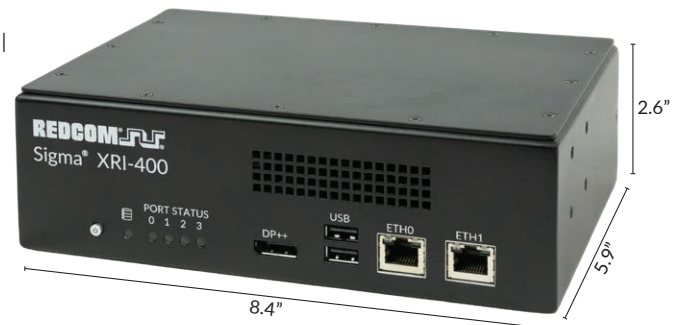
- Low SWaP small form factor C2 platform for distributed expeditionary air operations
- Solves Coalition and Joint interoperability challenges
- Enables stand-alone comms in DIL environments
- Interoperates with legacy or existing infrastructure
- Rapid boot time and resilient to hard shutdowns

REDCOM XRI HARDWARE

- 4 built-in analog audio interfaces for donor radios
- Configurable PTT and PTS trigger modes
- Agnostic to radio make, model, encryption, & waveform
- Communicate seamlessly over multiple nets
- Works with any IP-connected communications equipment, including SATCOM

Low SWaP

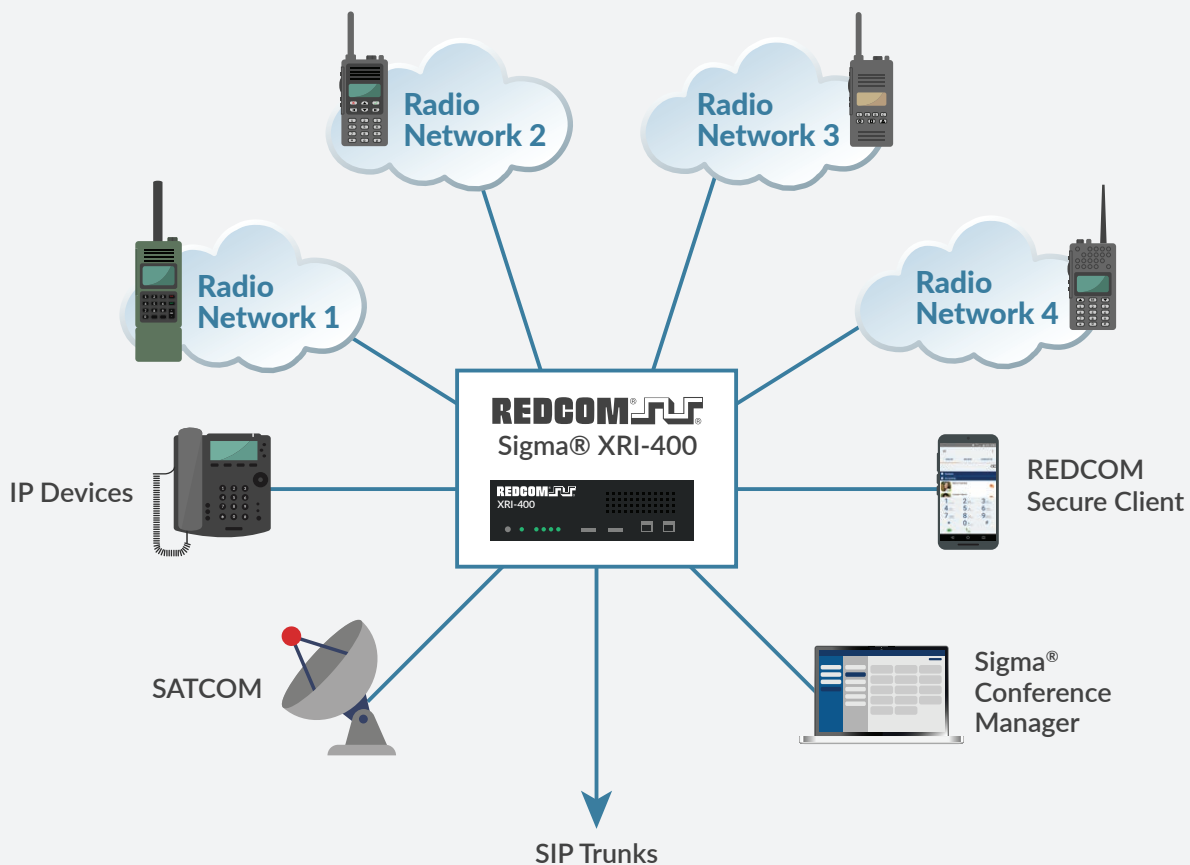
To rapidly deploy, disperse, and maneuver, the USAF needs full Command and Control capabilities in all areas of operation including air and land. Larger C-series aircraft (C-17, C-5, etc.) may not be feasible in the contested environment, therefore C2 capabilities must fit into a smaller C-130 or a CV-22. Additionally, Airmen must be able to quickly ruck C2 capabilities and jump them out of an aircraft in the transition to land operations.



The small form factor of Sigma XRI-400 allows the solution to be mounted in aircraft, packed, hand-carried, or added to an existing data/comms rack to support all areas of operations.

TACTICAL INTEROPERABILITY WITH REDCOM SIGMA® XRI-400

A single Sigma XRI-400 unit can bring together radios and IP devices from disparate networks, allowing for seamless comms between the USAF, Joint, and Coalition forces.



Interoperability

Airfield ops are joint in nature and will always grapple with the complexities of the combined joint environment. Whether you are conducting a large-scale airfield seizure or inserting a small SOF team into austere airfield, interoperability with joint forces is critical.

By connecting up to four donor radios directly to the XRI-400, you can instantly bridge the gap between disparate radio networks, endpoints, or frequencies, allowing for seamless communications between Joint and Coalition forces. Additionally, Sigma XRI-400 allows radio users to communicate directly with users on any SIP end device and can even participate in voice conferences.

Resilient Communications

Once an airfield is discovered it is only a matter of time before it is targeted, not only by long range weapon systems, but also directed electronic attacks. Sigma XRI-400 allows the USAF to leverage multiple communications lines, which is especially critical in scenarios where using whatever means available is crucial to the mission. If one line of communication is compromised the next down the line can be used from IP to Wi-Fi, LTE, SATCOM, UHF, VHF, HF, and TSM.

Command & Control

Regardless of interoperability challenges that arise from joint operations, at all times the people on the ground need to be able to maintain positive control of an active runway. Additionally, they must be able to communicate back to higher C2 nodes so they can receive updates on what's coming to them and relay back time sensitive updates that may pose a threat to inbound aircraft.

Sigma XRI-400 allows ground forces to maintain connection with higher command as well as other ground units, all without microwave antennas or satellite shots. In the event the airfield becomes a DIL (disconnected, intermittent, and limited) environment, Sigma XRI-400 can act as a stand-alone C2 comms system.

Mobility/Rapid set up and tear down

When a position is compromised, it is imperative to quickly tear down, disperse, and rapidly re-deploy to a new position. Designed for *shoot, move, communicate* operations, Sigma XRI-400 was developed to be resilient to hard shutdowns and power up in under a minute with no loss in progress. This means communications can be fully operational before tents have even gone back up.

Ease of Use

Looking at ACE from a personnel stand point, people in the Air Force will be tasked with taking on responsibility that may not be in their primary scope of expertise. Multi-capable airmen will be required to reduce the size of the force required to operate on a small, austere airfield. If a load master with no technical training is going to be asked to run comms, the system must be simple to learn and easy to use. To accommodate, the Sigma XRI-400 admin platform was built intuitively for today's warfighter — the platform is incredibly easy to learn and operate without the need for field service reps and IT experts.

Contact Information

REDCOM Laboratories, Inc.
One REDCOM Center
Victor, NY 14564
585-924-6500
sales@redcom.com
www.redcom.com

About REDCOM

REDCOM specializes in the development of advanced strategic, operational, and tactical communication solutions designed to support DoD modernization efforts. REDCOM's MIL-spec products are optimized for low size, weight, and power (SWaP), making them the ideal communications core for deployments to the tactical edge. All REDCOM products are proudly designed, developed, engineered, and supported in the USA. Learn more at www.redcom.com.