ALITER TECHNOLOGIES

COMTANET®

ICT modules for deployable and mobile military units

Combat proven

MIL-STD ruggedisation

Flexibility and modularity

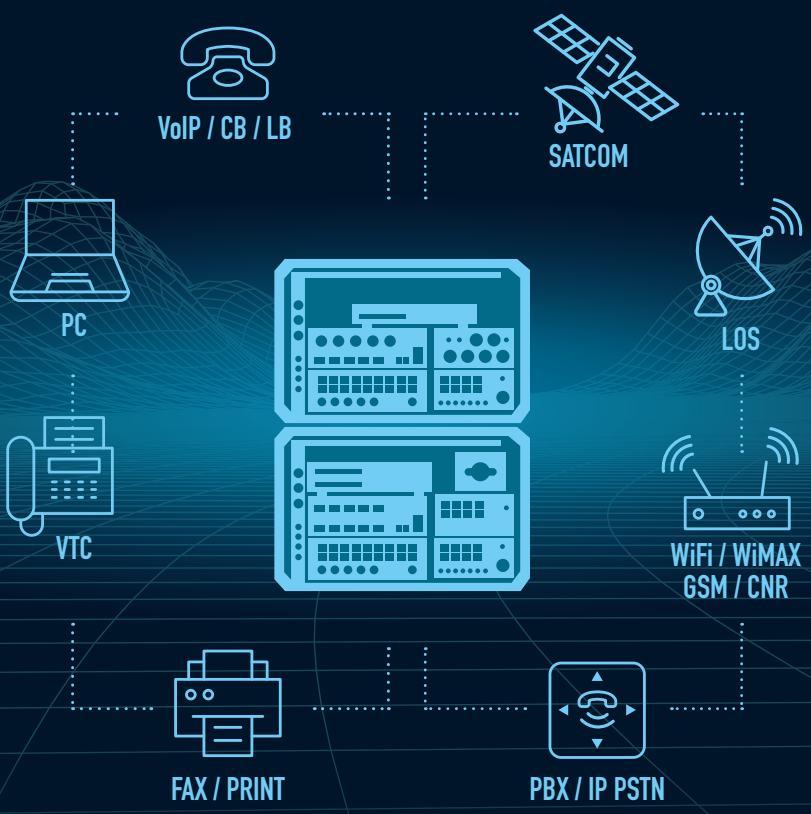
Easy to install

COMTANET® is a communications system that provides IP voice, data and video teleconferencing services to military tactical command posts and temporary civil defence operations centres. It also integrates military or civilian radios, high-speed MANET radios, satellite equipment and metallic or optical lines into its structure, creating a comprehensive tactical communications network.

Communication Tactical Network

COMTANET_06.2025

COMTANET® is an open modular system that can be expanded and configured according to user requirements. The individual components are designed to be ideal for highly mobile systems, which are compact, lightweight and energy-efficient. However, they do not compromise on the highest standards - they are built using the latest technology, tested by armies around the world, and offer all the necessary interfaces and accessories in a rugged form that can withstand the toughest conditions.



Key benefits

COMTANET® is a **modular and flexible** system with components mounted in 19-inch shipping boxes. It is scalable to customer needs and **open to integration** with other systems. The light weight and dimensions of the modules allow for **easy transport and handling.**

The system is **autonomous**, providing **voice, data and video** services regardless of the location. Its operation and administration are simple, while management is either local or connectable to external resources. All **modules are ruggedized** and meet standards for operation in extreme conditions.

A flexible system for every situation

COMTANET® can be easily expanded with additional modules to meet the requirements of every customer. The choice of modules is up to you - the system can be simple or robust, as your applications require.

Main system characteristics

Modularity

Component sizes are based uniformly on the main unit with halfwidth of 19" and they are set in standardized transport cases. One such case constitutes an entire module.

Flexibility

With the offer of components and modules, it is possible to create custom-made systems. In the case of special requests, a module can be altered or designed and built with new functionality.

Scalability

The system configuration is set up according to the customer's required service capacity upon delivery. Should expansion be required, components or whole modules can be supplied to increase the capacity and performance of the service at any time.

Open Architecture

COMTANET® architecture built on common open standards is conducive to implementing new services or when compatibility with third party services is required.

Transportability

Small size and weight of the modules is a key factor in transporting and manipulation in areas with limited logistical options.

Autonomy

The system can provide comprehensive voice, data and video services when deployed, regardless of location and the state of ICT infrastructure therein.

Simplicity

The configuration, installation or use of the system does not require expert user knowledge. System administration for adapting to new circumstances or regular operation has been simplified as much as possible.

Manageability

A standard feature of **COMTANET®** is a native management system for maintenance and monitoring of individual components and services. If required, the entire system can be connected to external management and maintenance tools.

Durability

All modules are made of components that comply with the strict standards of working in extreme environments.

System services

The number of provided services depends on the combination of modules and components in the configuration. It can be selected form the following modules:

- network Services Module (NET)
- data and Voice Services Module (DVS)
- wide Area Network Access Module (WAN)
- broadband Communication Module (DBCM)
- video Teleconference Module (VTC)
- line of Sight Radio Relay Module (LOS)
- data Terminals Module (D20)
- voice Terminals Module (V20)
- V/UHF Tactical Radio Communications Module (VUHFR)
- HF Radio Communications Module (HFR)
- electrical Power Generator Module (PWG)

In the case of a standard configuration being insufficient, modules with different equipment or new functionality can be designed.

The minimal **COMTANET®** configuration containing one NET and one DVS module provides a broad range of services, i.e. telecommunication services, information and integration services, information security services, management and control services, technical support and safety services.

Voice and data services

Voice and data services are the core function of the entire system. It contains network components including switches, routers, firewalls, and servers, hard drives together with VoIP software, server operating systems and app packages. Typical services include:

- IP telephony
- analogue telephone and fax connection
- LAN connection with PoE
- WiFi wireless network access
- automatic voice access to radio networks with the possibility of parameters modification (channel, traffic and selective call, etc.)
- electronic mail (e-mail)
- portal and web services
- office tools, group sharing and document management (SharePoint, etc.)
- communication tools (chat and messenger)
- file system and secure data storage (disk mirroring)
- video conferencing through dedicated devices
- system virtualization
- specific information system applications

Transmission services

The purpose of these services is to achieve a stable connection of the **COMTANET®** infrastructure to the external environment. It supports a broad range of standard interfaces and several exceptional, proprietary radio communication means:

- wired and fiber optic WAN connection (Ethernet, SHDSL)
- interoperability with other voice systems and terminals through 1 x E1, 1 x ISDN BRI, 2 x FXS, 2 x FXO and 2 x MB ports
- access to 2G and 3G networks
- narrowband and broadband WAN connection systems (Mesh WiFi, Mesh MANET B2R, LOS, Satcom, L/H/UHF CNR, ...)
- radio communication for specific requirements

Information security services

Protection against system resources misuse and data transfer security are default features of modules with the following services:

- virtual private networks (VPN)
- infiltration protection – firewall
- IDS network breach detection system
- antivirus services
- possibility of communication encryption with a special module (NBU, NATO, EU)
- access authentication and authorization with directory services and a verification server

Management and control services

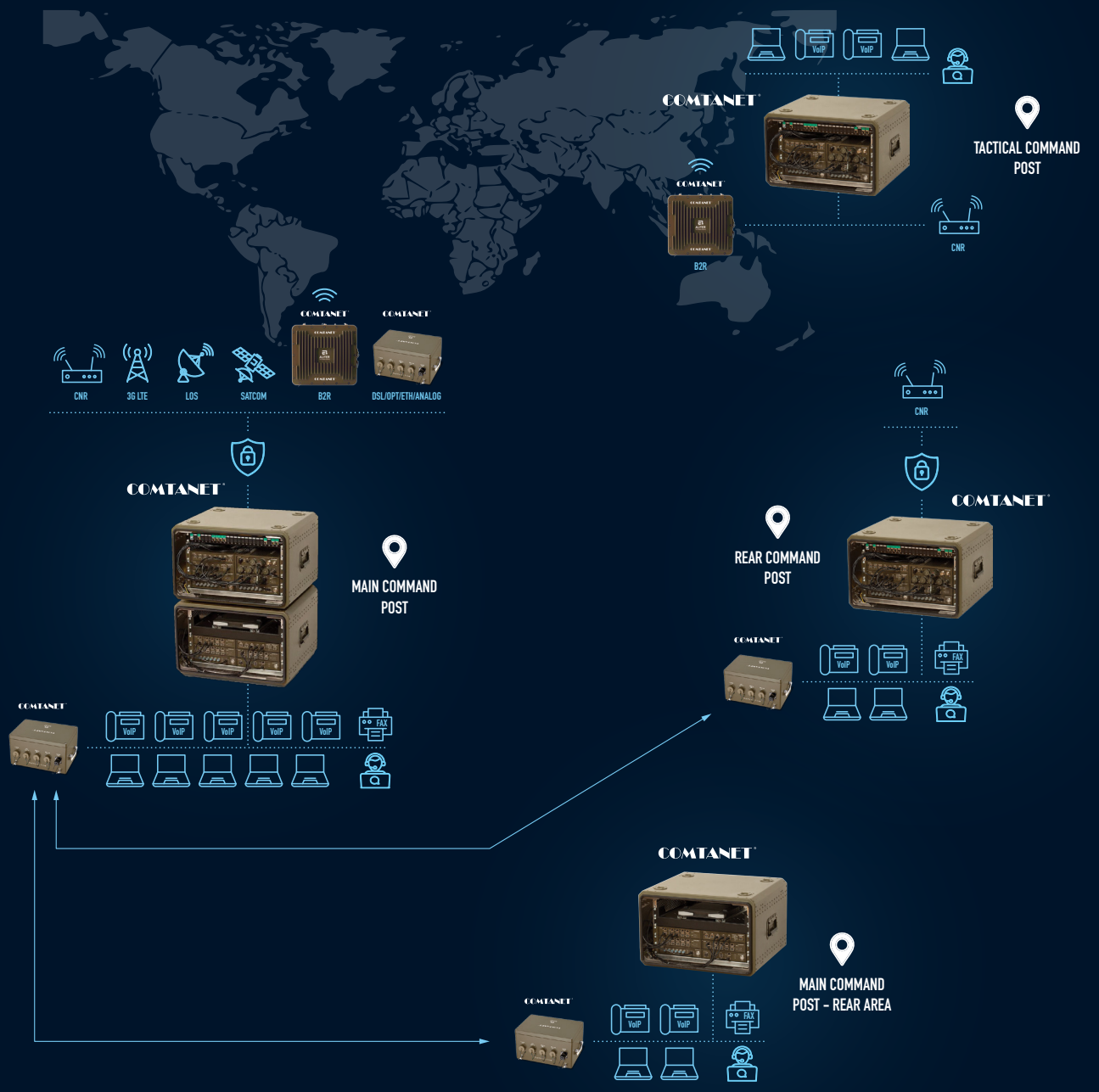
The role of these services is real-time monitoring of usage parameters and the generation of alarms and control logs.

- overview of service accessibility and infrastructure (SNMP)
- asset management
- remote management possibility
- reporting, summaries and audits

Technical support and safety services

These are safety functions for preventing components from being damaged and the personal safety of users and maintenance crews during repairs.

- power backup
- surge protection of physical interfaces
- increased user protection from electrocution during repairs



All components are designed and produced with increased durability and compliance with Mil-STD standards.

Operating temperature

-30°C - +50°C

MIL-STD 810F(G), for wheeled and track vehicles

Storage temperature

-50°C - +70°C

MIL-STD 810F(G), for wheeled and track vehicles

Climate resistance

Humidity 98 %/25 ˚C, IP54 to IP 67 enclosure

MIL-STD 810C, STANAG 2895, ed. 1. Cat. A3, C1

Mechanical resistance

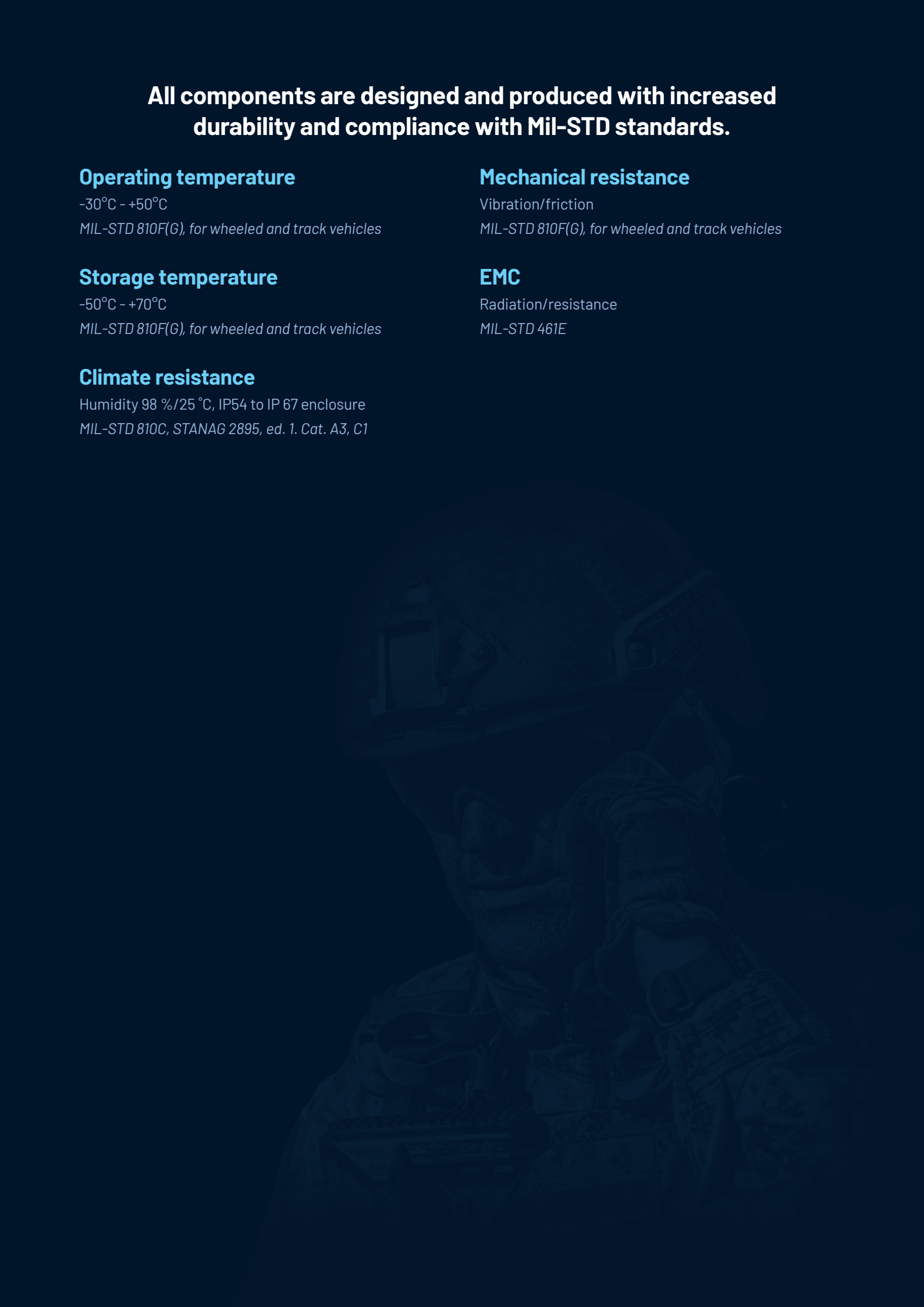
Vibration/friction

MIL-STD 810F(G), for wheeled and track vehicles

EMC

Radiation/resistance

MIL-STD 461E



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