NOVELSAT

PRODUCT DESIGN & DEVELOPMENT SERVICES

Design Your Mission Success

INTEGRATED DESIGN EXCELLENCE

NOVELSAT and AYECKA bring a strong legacy in custom SATCOM product development, offering complete, end-to-end design and delivery—from concept and system architecture to testing, production, and deployment. We work closely with our customers to develop tailored, application-specific products that become part of their operational ecosystem. From early-stage architecture to detailed engineering, prototyping, validation, and manufacturing, we serve as a trusted supplier to defense organizations, government agencies, commercial integrators, and aerospace contractors. Our multidisciplinary team—spanning RF engineering, embedded software, digital signal processing, mechanical design, and system integration—ensures every product aligns with customer needs and meets both mission and technical requirements.

BUILT FOR ANY MISSION, ANYWHERE

SATCOM systems must perform reliably across a wide range of operational environments—from harsh combat zones and remote industrial sites to airborne platforms and edge-deployed sensors. NOVELSAT and AYECKA specialize in designing and manufacturing SATCOM products for diverse deployment scenarios, including indoor, outdoor, mobile, and airborne applications. Our platforms are engineered for low SWaP (Size, Weight, and Power), high durability, and environmental compliance. These capabilities allow us to address a wide range of use cases including tactical communications, mobile command posts, oil & gas monitoring, smart agriculture, and utilities infrastructure. Whether for high-capacity terminals or compact IoT nodes, our products are built to meet the deployment and operational challenges of real-world environments.

Increase Mission Success

Ensure Secure Communications

Accelerate Time-to-Deployment

Reduce Development Risk

ADVANCED WAVEFORM ENGINEERING

Secure and resilient connectivity starts at the waveform level. NOVELSAT and AYECKA provide specialized waveform design and implementation to meet the most stringent requirements for performance, security, and spectral efficiency—delivered as integrated part of our end products. Our expertise spans SCPC, TDMA, and CDMA access schemes, with a focus on highly customized secure waveforms for defense, government, and intelligence applications. We incorporate advanced techniques such as frequency hopping, spread spectrum, encryption, and anti-jam protection— engineered to ensure link integrity in contested or sensitive environments. Built into software-defined architectures, these waveforms enable rapid adaptation, in-field upgrades, and seamless integration across diverse networks and mission profiles.

ONBOARD PROCESSING & AGILE PAYLOAD SOLUTIONS

As satellite missions grow in complexity, NOVELSAT and AYECKA are pushing the boundaries of payload intelligence. We develop advanced onboard processing platforms that combine edge computing, networking, and virtualization into a dynamic satellite payload core. Leveraging container-based architecture, MEC (Multi-access Edge Computing), and 5G native interfaces, our payload designs enable multitenancy, dynamic service orchestration, and real-time onboard data analytics. Key use cases include onboard image analysis, direct-to-device connectivity, localized content delivery, AI/ML inference, and IoT data fusion. These agile capabilities form the digital backbone for next-generation constellations—delivering flexibility, autonomy, and performance at the edge of space.
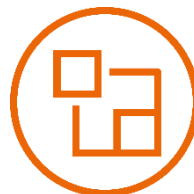
Full Lifecycle Engineering

Multidisciplinary Design Expertise

Secure, Mission-Tailored Waveforms

Ruggedized & Compact Platforms

For more information visit
www.novelsat.com