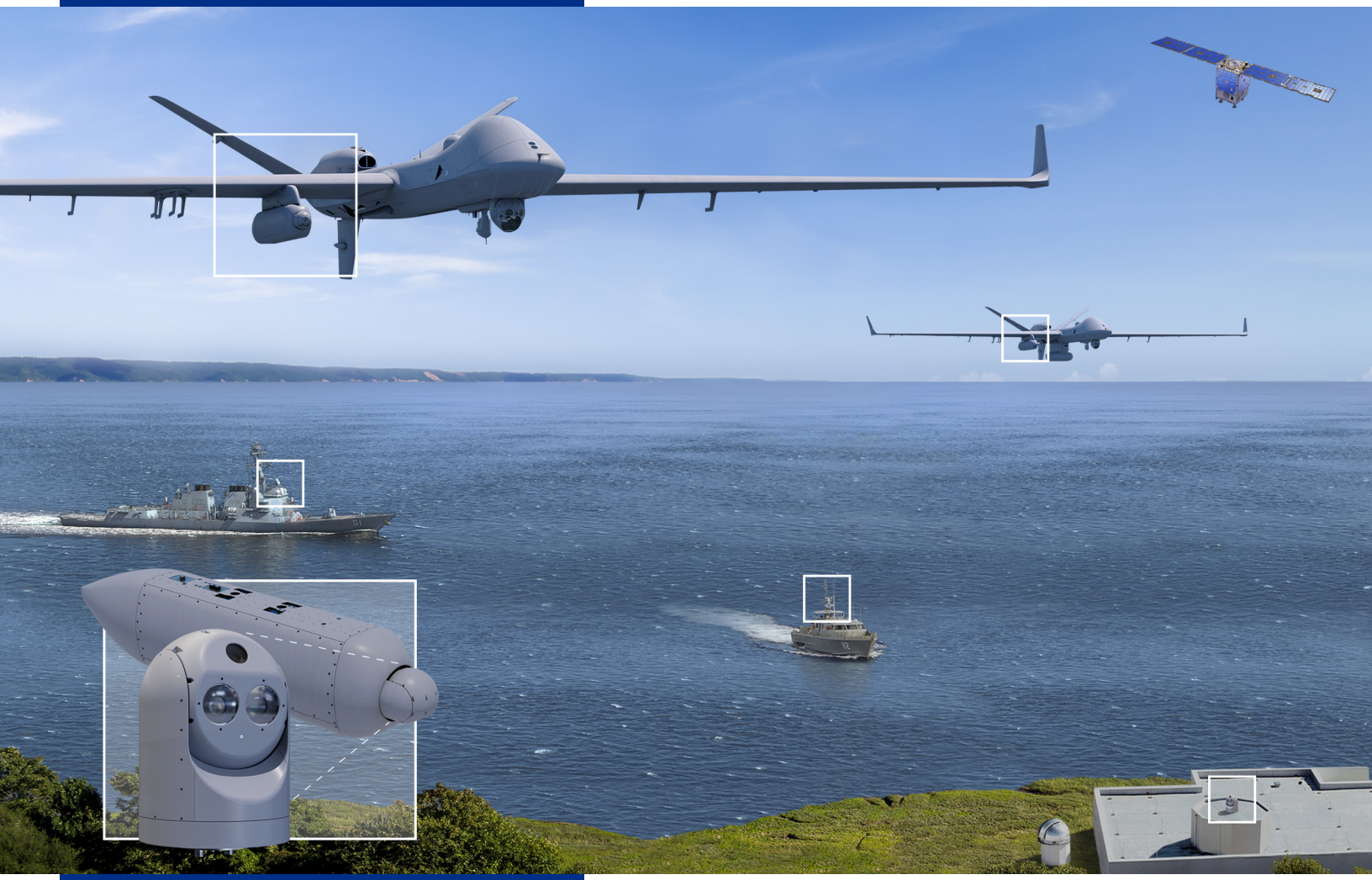

ABOUT US

The world leader in unmanned aerial systems.

We invent and pioneer modern solutions for military, security, governance, environmental operations and more.

We support our customers with the greatest medium-altitude and small unmanned aircraft systems, and cutting-edge mission payload and exploitation technologies.

OUR MISSION

Provide persistent, versatile, affordable airborne surveillance and effects, and turn surveillance data into actionable intelligence.

LAC-12 Terminal

ALL-DOMAIN LASER COMMUNICATIONS

The **Laser Airborne Communication Terminal (LAC-12)** from General Atomics Aeronautical Systems, Inc., is a next-generation gyro-stabilized, two-axis laser communication gimbal. LAC-12 provides the warfighter with a game-changing low probability of intercept and low probability of detection capability. Additionally, it incorporates an anti-jamming communications system with up to 300 times the data-carrying capacity of conventional RF SATCOM systems. This highly advanced terminal provides air, ground, maritime, relay, and air-to-space connectivity — serving as a gateway to the Joint Aerial Layer Network for forward-deployed forces. LAC-12 has demonstrated operability in multiple domains and can be directly integrated onto MQ-1 and MQ-9 unmanned aircraft systems.

LAC-12 Terminal

ALL-DOMAIN LASER COMMUNICATIONS

SPECIFICATIONS

SIZE
12" D x 15" H

WEIGHT
43 lb (20 kg)

POWER
28 VDC, 200 W max

BOLT PATTERN
8" x 5.5" (D) 1 / 4-28

MOUNTING ORIENTATION
360-degree mounting flexibility

ENVIRONMENTAL

TEMPERATURE
- 25 °C to + 50 °C

WEATHER
Rainproof (Fully sealed with breather valve and desiccant)

ALTITUDE
25,000 ft (7,620 m)
(Minor electronic changes to support higher altitude)

AIRSPEED (Operating)
140 KTS

AIRSPEED (Survival)
500 KTS

STRUCTURAL
9g static compliant (FAA FAR 25.561)

OPTICAL

TRANSMIT OUTPUT POWER
20 dBm to 30 dBm (0.1 to 1 W)
(Internal erbium-doped fiber amplifiers, eye safe at aperture)

TRANSMIT INTERFACE (STD)
8 µm SMF (Angled physical contact connection)

TRANSMIT DIVERGENCE
100 µrad to 4 mrad (Software controlled)

APERTURE SIZE
72 mm (Transmit and receive)

TRANSMIT WAVELENGTH
1,540 nm to 1,565 nmi

RECEIVE WAVELENGTH
1,550 nm to 1,560 nmi

RECEIVE INTERFACE (STD)
105 µm step-index multi-mode fiber
(Angled physical contact connection)

USER DATA RATE
850 Mbps at 100+ km
(Using TALON / EAGL-compliant TrellisWare modem)

GIMBAL

AZIMUTH RANGE
+ / - 200°

ELEVATION RANGE
-70 °C to + 40 °C

SLEW RATE
100° / sec

STABILIZATION
150 µrad

POINTING ACCURACY
2 mrad

COMMAND / CONTROL INTERFACE
10 / 100 Ethernet

CONTACT US
14200 Kirkham Way
Poway, CA 92064
+1 (858) 312-2810

SCAN TO LEARN MORE