

NEWSPACE MARKET · COMPANY PROFILE



General Atomics Synopta GmbH

Switzerland · founded 2004 · ga-synopta.ch

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as of 20 August 2026



General Atomics Synopta GmbH

General Atomics Synopta GmbH (GA-Synopta) is a Swiss opto-electronics company founded in spring 2004 in Eggersriet, in the canton of St. Gallen, Switzerland, to provide strategic and technical consultancy alongside the development and production of high-value opto-electronic equipment. GA-Synopta specializes in complex opto-electronic instrumentation for both space and terrestrial applications, delivered as small-to-medium series products or bespoke prototypes. Its core technical competences span systems engineering, orbital analysis, adaptive optics, precision mechanisms, communication and control electronics, and software, applied across three flagship product lines: beam pointing and stabilization systems (Coarse and Fine Pointing Assemblies), optical ground stations for satellite laser communication, and free-space/fiber optical communication systems and components. Its customers include European organizations, national space agencies, and international defense/space corporations. In June 2021, GA-Synopta was acquired by General Atomics, the US defense and diversified technologies company, becoming General Atomics Synopta GmbH. The company maintains its Swiss engineering heritage and independent Eggersriet facility while operating within General Atomics' global aerospace and defense portfolio. GA-Synopta holds memberships in Swissmem, the Swissmem Specialist Group Space Technology, and the Swiss Space Center.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

SERVICES

Services

Business Development Consultancy

GA-Synopta offers consultancy in various areas of business development and public affairs, including business case analyses, strategic planning, market analyses, risk analyses, and support for communi

Contract Development of Instruments and Assemblies

GA-Synopta offers contract development of complete opto-electronic instruments and assemblies, or co-operation within customer's engineering teams.

Management-oriented services

GA-Synopta provides management-oriented services including project management, risk management, supply-chain management, and support for proposal preparation.

Product catalogue



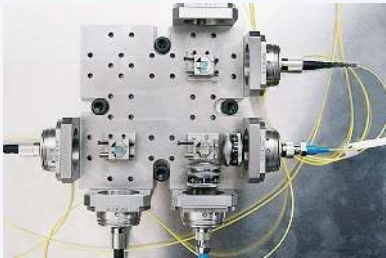
GENERAL ATOMICS SYNOPTA GMBH

Beam Pointing Systems (CPA / FPA)

Coarse and Fine Pointing Assemblies for beam pointing and stabilization in laser communication terminals and optical ground stations.

CPA 270 max beam diameter	Ø 270 mm (ground-based, harsh environmental conditions)
CPA 135 max beam diameter	Ø 135 mm (space-qualified, series production for GEO/LEO LCTs)
CPA 70	Smaller beam diameter variant, space qualification program
CPA pointing error	< 30 µrad
CPA induced wavefront error	typically < 25 nm rms
CPA wavelength options	Visual spectral range; optimized variants at 1064 nm and/or 1550 nm
FPA angular range	± 2.5° (mechanical)

price on request



GENERAL ATOMICS SYNOPTA GMBH

Communication Systems

GA-Synopta develops innovative optical communication systems for high data rates, suitable for both terrestrial and space applications on-board satellites.

Product types	Direct detection receivers, coherent receivers (fiber-coupled or free-space), laser transm
Application	High data-rate terrestrial and on-board satellite optical communication

price on request



GENERAL ATOMICS SYNOPTA GMBH

Metrology

Custom-built metrology and control systems from GA-Synopta for measuring, calibrating and characterising optical and electromechanical systems, including test beds relevant to space

Capabilities	Point spread function, focal length, distortion, magnification, spectral transmission meas
DIMM systems	Differential Image Motion Measurement for atmospheric turbulence characterization
Other systems	Climatic chamber control, electronic autocollimators, motor test beds, beam pointing/stabi

price on request



GENERAL ATOMICS SYNOPTA GMBH

Optical Ground Stations

Stationary and transportable adaptive optical ground stations for laser communication with satellites in GEO/MEO/LEO or deep space.

S-AOGS telescope size	> Ø 0.5 m
T-AOGS telescope size	Ø 0.25 m to Ø 1 m
Data rate with GEO satellite	> 2 Gbit/s (uplink and downlink)
Feeder link to GEO satellite	> 20 Gbit/s uplink, > 10 Gbit/s downlink, scalable up to Tbit/s
Supported wavelengths	e.g. 1064 nm, 1550 nm
Capabilities	Bi-directional transmit/receive, quantum cryptography support, autonomous network operatio

price on request

Contact General Atomics Synopta GmbH

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

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