



The ESA Business Incubation Centre in Bavaria, Germany, was founded in 2009 and is managed by Anwendungszentrum GmbH Oberpfaffenhofen (AZO). Together with its partners the centre offers business start-up support as well as technical expertise in m

ViaLight Communication (VLC)

VLC – Extremely high data-rate laser communications terminals for aerial and space applications.



[Website](#)

Founded in 2009 by

- **Dr. Markus Knapek**
- **Joachim Horwath**
- **Dr. Dirk Giggenbach**

Incubation period

01-07-2010 to 01-06-2012



space solutions

Alumni

About ViaLight Communication (VLC)

Commercializing over 20 years of research experience in free-space optical communications to enable the current evolution of stratospheric and space-based high-capacity communications and backbone networks.

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The challenge

The increasing demand for high-quality and high data-rate services required by emerging applications such as 3D, 4K and Ultra High Definition TV (UHDTV) broadcast cannot be exclusively accommodated by current terrestrial (wired and wireless) and space network infrastructures. So, ViaLight develops free-space optical communications terminals for the aerospace and space sectors to close the gap for the increasing capacity needs. The founders of ViaLight commit to making laser communications more accessible. ViaLight promises to meet the needs of a unique customer base; those who are the visionaries of the Internet in the sky concept.

The solution

ViaLight Communications GmbH develops and manufactures innovative high-rate and secure laser communication systems (1 – 40 Gbps). ViaLight has a series of products: terminals, ground stations, front-end receivers (RFEs) and laser-Ethernet transceivers (LETs). The receivers' production line has the Miniature Laser Terminal (MLT) series: MLT-20 (aperture size of 20mm) which is an extremely compact flight terminal (<5kg) for smaller UAV and helicopter platforms. The MLT-70 and MLT-100 (aperture sizes of 70mm and 100mm, respectively) are capable of transmitting large data volumes with link distances up to 600Km. The ground stations production line currently produces the GS-600 (with 60cm telescope), a transportable optical ground station for long-distance links in the atmosphere or for satellite downlinks and the GS-200 (20cm telescope), of weight

<50kg, which is a miniaturized optical ground station for fast deployment and easy transport.

