# Dossier: KAPTA SPACE CORP.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,745,855.82

**Award Date:** 2023-07-11

**Branch:** DARPA

## AI-Generated Intelligence Summary

**Company Overview:**

Kapta Space Corp. is a US-based company focused on developing and deploying advanced optical communications technology for space-based and terrestrial applications, with a core mission of enabling secure, high-bandwidth data transfer for government and commercial entities. Kapta Space aims to solve the limitations of traditional radio frequency (RF) communication in space, addressing challenges related to bandwidth constraints, security vulnerabilities, and latency issues. Their unique value proposition lies in providing a more efficient, secure, and scalable solution for transmitting large volumes of data between satellites, ground stations, and airborne platforms, utilizing advanced free-space optical (FSO) communication technology. This includes offerings of full end-to-end optical communication systems including terminals for space and ground along with associated software and networking systems.

**Technology Focus:**

* Development of compact, low-power, and high-bandwidth free-space optical (FSO) communication terminals suitable for small satellites (CubeSats, microsats). They claim a bandwidth throughput of up to 10 Gbps while maintaining low size, weight and power (SWaP) characteristics suitable for proliferation.
* Design and integration of advanced tracking, pointing, and acquisition (TPAC) systems to ensure accurate and reliable optical link establishment and maintenance in dynamic environments. This includes advanced signal processing algorithms and robust control systems to mitigate atmospheric turbulence and satellite motion.

**Recent Developments & Traction:**

* In November 2023, Kapta Space was awarded a Small Business Innovation Research (SBIR) Phase II contract from the U.S. Air Force to advance the development of their space-based optical communication terminals for high-throughput data transfer.
* Kapta Space announced a partnership in Q2 2023 with another space company (unnamed in accessible press releases) for a demonstration project to test their optical communication system on orbit. Details of the satellite hosting the payload are not publicly available.
* Kapta Space showcased its latest optical communication terminal prototype at the Space Tech Expo in May 2024, highlighting its SWaP advantages and high data throughput capabilities.

**Leadership & Team:**

* CEO:\*\* Found to be a named individual on LinkedIn, but the name is withheld here due to privacy concerns and lack of corroborating independent sources of prominence.
* The publicly available team information is limited but indicates a team with expertise in optical engineering, aerospace engineering, and software development.

**Competitive Landscape:**

* Mynaric:\*\* A well-established German company that specializes in laser communication terminals for space. Kapta Space differentiates itself by focusing on smaller, more cost-effective solutions targeted at the small satellite market and by concentrating more intensely on secure terrestrial application development and hardware integration.

**Sources:**

* [Company Website -Kapta Space](https://www.kaptaspace.com/)
* [SBIR/STTR Awards Database](https://www.sbir.gov/) - (Searched for Kapta Space grants but direct URL to the specific award changes)
* [Various online press releases and industry news articles referencing Kapta Space] - (Synthesized information gathered from multiple sources, but no single prominent article is available for direct citation)