

The background of the top half of the page is a photograph of a mining site. In the foreground, a large yellow and black haul truck is parked. In the background, an orange excavator is working on a pile of dark, rocky material. The sky is overcast. On the right side, there is a large, close-up image of a heavy-duty tire with a complex tread pattern. In the bottom right corner, there is a RUGGON VORTEX 7" vehicle mount computer. The screen displays a blue network diagram with nodes and connecting lines. The device has several buttons and a speaker grille on the front.

## Application Story

Ensuring Reliable Communication  
in Remote Mining Operations with  
VORTEX 7" Vehicle Mount Computer

**Region: APAC**

**Industry: Mining Operations / Satellite Communications**

**Solution: VORTEX Series**

### Background

In remote mining operations, maintaining reliable communication between mining sites and control centers is crucial for operational efficiency and safety. Vehicle-mounted SATCOM (Satellite Communication) systems provide seamless connectivity in areas where traditional network coverage is unavailable. The VORTEX 7" Vehicle Mount Computer from RuggON delivers a robust SATCOM solution that ensures dependable performance even in harsh mining environments.

### Challenge

Mining operations in remote areas require reliable, real-time communication solutions for vehicle tracking, data transmission, and coordination with control centers. These operations often occur in extreme conditions, where traditional communication infrastructure may be lacking, and vehicles need durable, reliable technology to maintain connectivity.



## RuggedON Solution / Product Highlight

The VORTEX 7" Vehicle Mount Computer stands out with its robust design and advanced features tailored for demanding mining environments. Equipped with a reliable SATCOM communication solution, it ensures seamless satellite connectivity in remote areas. The high-brightness 7" display guarantees clear visibility even in direct sunlight, enhancing operator efficiency. Its wide voltage input (9-60V DC) makes it adaptable to various mining vehicle power systems, while the MIL-STD-810H certification provides exceptional shock and vibration resistance. With a temperature range of -30°C to 60°C and IP65 water and dust protection, the VORTEX 7" is built to withstand extreme conditions, ensuring consistent performance in the harshest mining environments.

## Result

After implementing the VORTEX 7" Vehicle Mount Computer, mining operations experience enhanced communication and operational efficiency. The device provides reliable satellite connectivity, ensuring seamless real-time data transfer and vehicle tracking in remote areas. Its rugged design withstands the harsh conditions of mining sites, including extreme temperatures, dust, and vibrations, ensuring consistent performance. The intuitive interface simplifies system setup and maintenance, enabling operators to focus on their tasks. Overall, the VORTEX 7" significantly improves communication reliability, safety, and coordination between vehicles and control centers in remote mining locations.

## Conclusion

The VORTEX vehicle mount computers are perfectly suited for mining SATCOM applications, offering the durability, reliability, and performance needed in tough mining environments. With their rugged design and advanced features, these devices ensure stable communication in remote mining operations, making them the ideal solution for maintaining critical connectivity and enhancing operational efficiency in challenging conditions.

