Mimo Elevates Space Exploration with OHB System AG

Pioneering Digital Display Solutions for Advanced Space Missions

OHB System AG, the largest subsidiary of the German OHB SE group, stands at the forefront of European space system suppliers for more than 40 years. Operating from its hubs in Bremen and Oberpfaffenhofen, OHB System AG boasts an impressive portfolio. Their diverse offerings span from developing satellite systems for a myriad of uses — earth observation, navigation, telecommunications, reconnaissance — to engineering missions for space exploration and systems for human space flight. Their unofficial motto, "We.Create.Space." encapsulates their passion and expertise in the realm of space technologies.

For human space flight, OHB System AG works intensively on humanity's most remote outpost: the International Space Station (ISS). Within the ISS is the Columbus research laboratory and ATV space freighter with numerous experiment systems used on board the ISS. It's within these set ups OHB System AG has been most intimately involved with the assembly and equipment.

Solving Space's Unique Challenges with Innovation

The ISS's distinctive environment posed a significant challenge: With no ability to open a window for fresh air, trace gases can build up inside the station. To solve this delicate issue, OHB developed a system to monitor trace gases inside the station, ensuring a safe environment for astronauts.

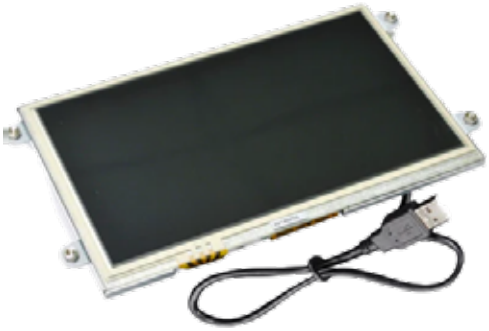
Led by Lukas Pfeiffer, project manager and system engineer, the OHB team created ANITA-2 (Analysing Interferometer for Trace Gas Analysis), complete with the well renowned Bruker Rockslid™ interferometer. This cutting-edge system is capable of simultaneously measuring over 40 gases like ammonia, methanol, and ethanol. Its exceptional stability, reliability, and precision is unmatched, even surpassing gas chromatographs in detection and accuracy. This innovation not only holds promise for lengthy space exploration missions, but also for other applications, such as monitoring the gas environment during chip manufacturing in clean rooms.

While the team was able to manufacture a high-tech solution for the immediate problem, there was still a key component missing with many special requirements. Firstly, astronauts and the ground team needed a flexible interface for both input and output that they could operate independently, even when wearing protective gloves. Secondly, OHB required a design with USB plug-and-play connectivity that could be seamlessly integrated into their system. And finally, while most solutions involve conventional plastic housings, this is specifically forbidden on the ISS.

Mimo's Space-Ready Solution

Having a history of collaboration with Mimo since 2018, OHB System AG relied on Mimo yet again for their unmatched quality, reliability, and durability — all important factors when dealing with the seriousness of space travel.

To address the ISS's precise needs, Mimo recommended the UM-760RK-OF touchcreen mmonitor, an enhanced version of the UM-760R-OF model. This device stands out, not just for its resistive touch screen capabilities and DisplayLink™ technology, but also for its compact, integration-centric design, encased in a rigid, front-mountable metal frame.



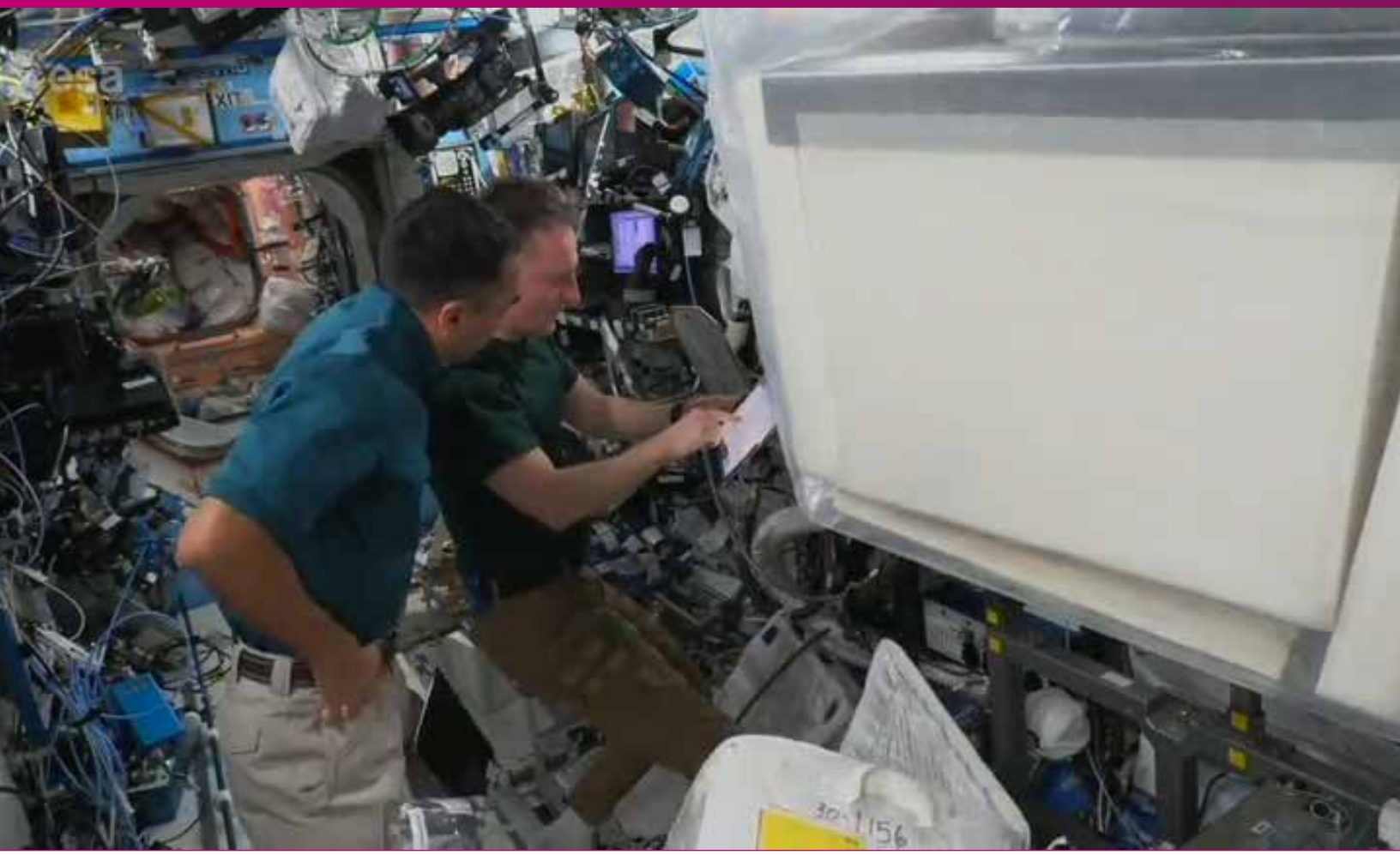
7" OPEN FRAME RESISTIVE TOUCH DISPLAY, USB (UM-760RK-OF)

Building upon its foundational qualities, the UM-760RK-OF is distinguished by its compact and robust design. Its open-frame structure is tailored for swift integration while the rigid, front-mountable metal frame ensures durability, especially essential in challenging space environments where gravity isn't always guaranteed.

The device's innate flexibility is highlighted by its dual orientation capability and unified connectivity system, making it adaptable for a myriad of operational scenarios. Instead of a tangle of wires, it consolidates video, touch, and power into a singular USB connection, a design consideration that is especially important for the ISS where efficiency and simplicity is key.

"The monitor enables the astronauts to perform gas measurements with the ANITA-2 system without any coordination with the ground station. This capability is used regularly onboard the International Space Station, offering invaluable insight into the atmosphere composition onboard the Space Station."

Lukas Pfeiffer, Project Manager and System Engineer, OHB System AG



The UM-760RK-OF is an example of Mimo's commitment to mergine innovation with practicality, ensuring that users–whether in space or on the ground–have access to efficient, enduring technology.

OHB System AG Elevates ISS Efficiency and Safety with Advanced Display Solutions

The ANITA-2 system is now amplified through the seamless integration of Mimo's interactive touchscreen interface, further guaranteeing precise gas atmosphere monitoring. Astronauts can operate the system without reliance on ground-based coordination, streamlining operations and allowing continuous monitoring.

Moreover, the design considerations perfectly met the ISS's specific requirements. The touchscreen's resistive touch technology at its core ensures responsiveness, even when wearing gloves, thereby minimizing operational delays and potential errors. This fortifies the reliability and functionality of the ANITA-2 system, emphasizing its role in ensuring the health and safety of the astronauts aboard the ISS.

Mimo is proud to have products with such a wide breadth of usability, even meeting the needs of an industry as important as space technology. The long-time partnership with OHB System AG displays Mimo's commitment to superior customer satisfaction through a solution-first design for a seamless experience, ultimately enhancing the safety of the ISS's operations.

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