

## MMIBS

### Mini-Multi Interface Box Simulator

Multi-interface, portable, small-sized and programmable in Python device to facilitate testing and simulations of avionics and electronics. It allows you to emulate or read the main protocols of on-board aeronautical systems.

Simulates, converts and tests **ARINC-429, MIL-1553, AFDX or CAN interfaces** with a single programmable device in Python.



### Main features and advantages



**Emulates any electronic system on board**, simulating inputs and outputs following the logic and the protocol



**Programmable**, both in **python** and with an intuitive **graphical interface**, allowing infinite possibilities



Integrates the **most common aeronautics protocols**: ARINC-429, MIL-1553, AFDX, CAN, RS-422...



Integration of **several tests and simulation systems into a single**, very small and portable system.



Execution and **analysis of complex tests and simulations remotely**



**Reduce time and cost**, accelerating the implementation of tests and simulations

### Possible applications of MMIBS as a test device



**Ground tests in aeronautics**  
Ground tests on aircraft without the need for several equipments or large facilities.



**Avionics tests**  
Testing and simulation of avionics and on-board systems with a single device.



**Simulation of real situations**  
Simulations of real situations with simulated inputs and outputs in a test environment.



**Testing of electronics**  
Checking any electronic system with the simulation of inputs and outputs.



# Specifications

## Interfaces

- 1x MIL-STD-1553 dual redundant bus (bus A, bus B)
- 8x ARINC 429 Tx & Rx channels
- 2x CAN Bus
- 1x Redundant AFDX
- 1x Serial RS-422 up to 4Mbps
- 8x Analog Inputs ( $\pm 10V$ , 1MSPS). 8x Single-ended/4x Differential
- 4x Analog Outputs ( $\pm 10V$ ) with RVDT capabilities
- 8x Discrete Outputs (28V/OPEN, OPEN/GND)
- 8x Discrete Inputs (28V/OPEN, OPEN/GND)

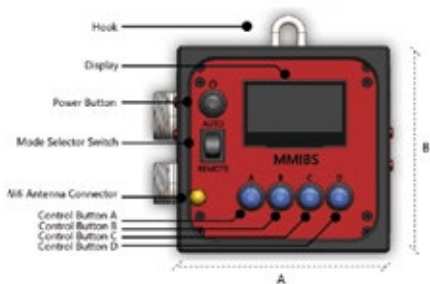
## Characteristics

- **Size:** 140 x 150 x 135 mm
- **Weight:** 1650  $\pm$  5 gr
- **Body:** Anodized aluminum IP51

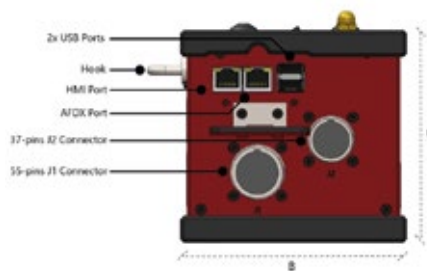
## Connectors

- **MIL-DTL-38999 III:** ARINC 429, MIL-STD-1553, CAN Bus, RS-422
- **MIL-DTL-38999 III:** Analog Inputs/Outputs, Discrete Inputs/Outputs
- **2x RJ-45:** AFDX, HMI
- **4x USB type A:** USB
- **USB type B:** Host
- **HDMI:** HDMI output

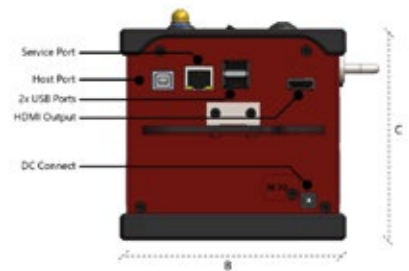
## Top view



## Front view

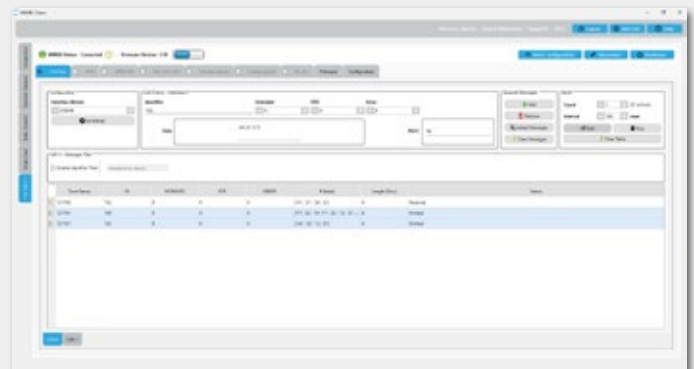
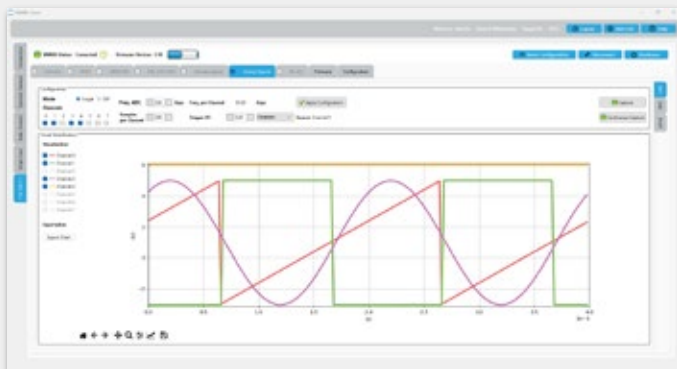


## Rear view



## Programmable

Configure all the simulations and tests you want with **Python** or using a practical and intuitive **graphical interface**.



## References

- **MMIBS:** P/N SK07010003