

## MORA Development Box

Our low-cost MORA-enabled, multi-channel RF transceiver device offers a simple development solution for those just exploring MORA as well as seasoned developers creating deployable systems and user interfaces.

The MORA Development Box simplifies the process of creating RF signal processing capabilities and expedites the integration of existing applications within the MORA space. Using the hardware-agnostic helux™ Core, a combination of software libraries and firmware modules, the MORA Development Box integrates the high-performing Epiq Solutions Sideiq™ X4 with a Xilinx ZCU102 FPGA (development board) to provide MORA-compliant interfaces for the VICTORY Data Bus (VBD) and MORA Low Latency Bus (ML2B).



For an even more robust system, additional helux™ graphical tools can be added, including the MORA Explorer to visualize, explore, and control MORA-enabled hardware and the MSRP Generator to create, view, and modify MORA Signal Resource Profiles (MSRP). Together, the MORA Development Box and optional helux™ Tools offer an affordable, user-friendly solution for developers in the MORA community.

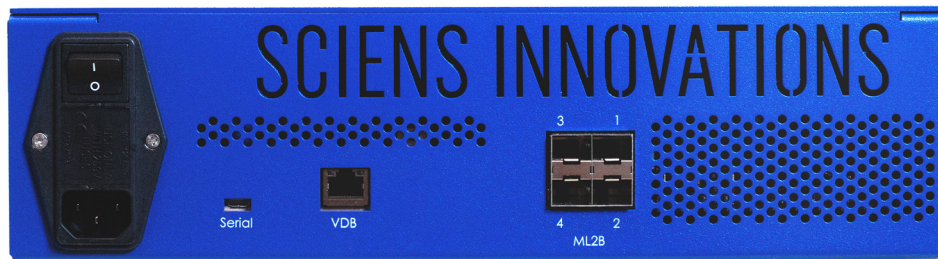


### RF Transceiver Specifications

- 4 RX and 4 TX channels (phase coherent or two-phase coherent pairs)
- RF Tuning Range: 1 MHz to 6 GHz
- Sample Width: 16-bit ADCs, 14-bit DACs
- Channel Bandwidth: Up to 200 MHz
- Instantaneous Bandwidth: 800 MHz

### RF Input Specifications

- 1 PPS for data timestamping
- 10 MHz reference for phase locking to external source



### Network Interfaces

- ML2B: 40GbE or 4x 10GbE via 4x SFP+ cage
- VDB: 1GbE via RJ45

### Dimensions and Weight

- 14 in x 13.25 in x 4.1 in (LxWxH)
- 7.78 lbs (3.53 kg)

### Open Standards Compliance

- MORA 2.4 and future versions
- VITA 49.2 (upon request)

### Optional helux™ Tools

- MORA Explorer GUI
- MSRP Generator GUI

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Sciens Innovations is a team of highly experienced, diversely trained engineers focused on providing the Intelligence Community with software and hardware engineering development services and products in the areas of DSP, FPGAs, SDRs, and MORA/SOSA.

