

Model 8257A

SOSA aligned 1-slot 3U VPX development chassis
for Quartz products

Development platform for
Mercury's SOSA aligned
RFSoc based Quartz boards

- Access to data and control planes provided through RTM
- 1-slot, small footprint chassis
- Rear panel access to RF I/O, 100 GigE and chassis manager
- Supports VITA 67.3C



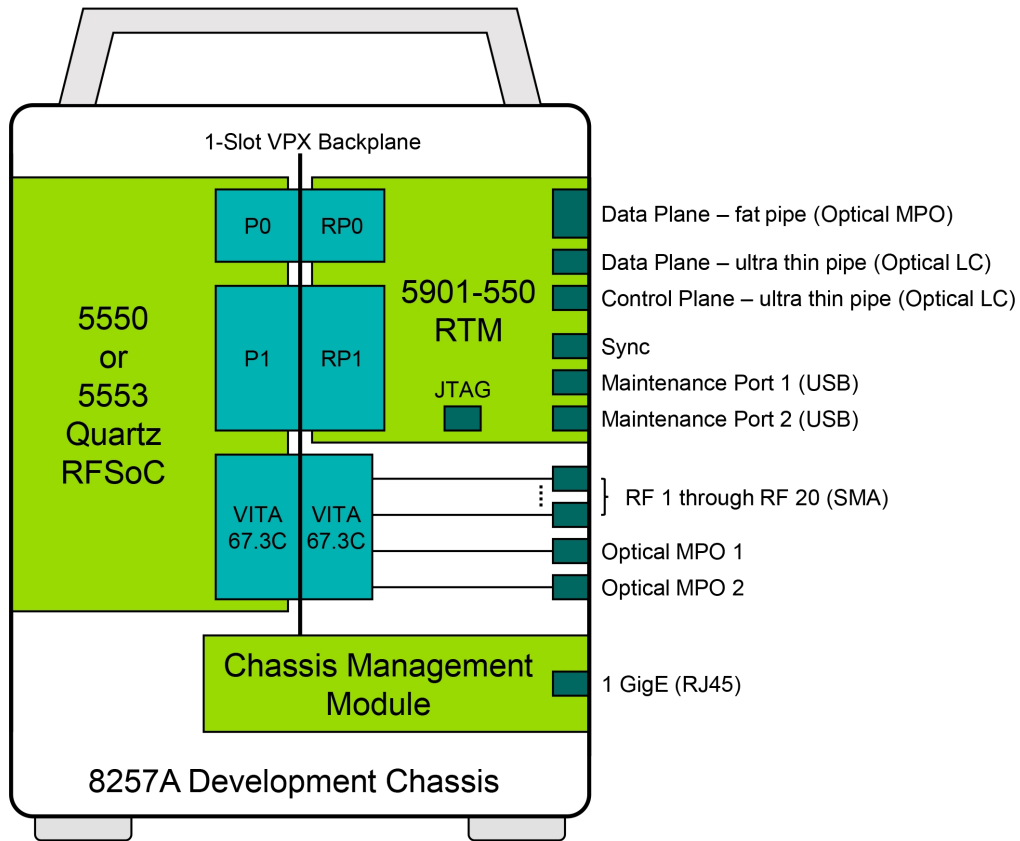
The Model 8257A is a low-cost, SOSA aligned 3U VPX chassis ideal for developing applications on Mercury's Model 5550 or 5553 Quartz® RFSoc boards. Providing power and cooling to match the 5550 and 5553 in a small desktop footprint, the chassis allows access to all required interfaces on the 5550 and 5553 without the need for a larger, more expensive multi-slot chassis.

Model 5550 features the Zynq UltraScale+ RFSoc Gen 1. Model 5553 features the Zynq UltraScale+ RFSoc Gen 3.

DEVELOPMENT ENVIRONMENT

Many SOSA aligned systems are deployed with custom backplanes specific to the interconnect requirements of the application. The 8257A allows IP and software developers immediate access to RFSoc hardware in a simple 1-slot backplane. This can accelerate development time while a custom SOSA backplane is being defined or manufactured.

The 8257A's built-in forced-air cooling is designed to support conduction-cooled boards in an air-cooled chassis. This provides the convenience of development on the conduction-cooled boards in a desktop or laboratory environment.



REAR TRANSITION MODULE

While conduction cooled chassis typically do not allow the use of a Rear Transition Module (RTM) for deployment, the 8257A supports the Model 5901-550 RTM for use during development. This RTM allows convenient access to the RFSoc board’s Data and Control Planes via optical interfaces, eliminating the need for a gigabit Ethernet switch card during development. In addition, two management ports, the multi-board sync interface, and a JTAG port are available on the RTM.

REAR ACCESS PANEL

The 8257A’s rear panel features 20 SMA coaxial breakout connectors, providing direct connections to the VITA 67.3C’s 20 RF backplane interfaces. For support of the RFSoc board’s dual 100 GigE optical interfaces, two optical MPO connectors allow connections using standard optical cables. A RJ45 connector delivers a 1 GigE connection for chassis management.

CHASSIS MANAGEMENT

Mercury’s SOSA aligned development chassis utilizes Crossfield Technology LLC’s VITA 46.11 and HOST aligned Chassis Management Module (CMM). This CMM is software upgradeable to the forthcoming SOSA v1.0 Technical Standard. The 8257A’s CCM is an ideal platform for introducing developers to SOSA Out-of-Band System Management operation.

SPECIFICATIONS

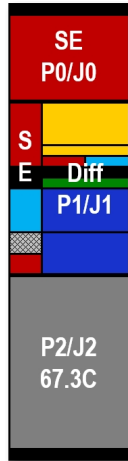
Rear Panel Connections:

- RF:** 20 SMAs
- Gigabit Serial:** 2 optical MPOs
- 1GigE:** 1 RJ45

- Dimensions:** 192.8 mm W x 307.8 mm D x 425.5 mm H
- Weight:** 17.8 lb
- Power Supply:** 300 Watts
- Operating Temp:** 0° to +50° C
- Storage Temp:** -40° to +85° C
- Relative Humidity:** 5 to 95%, non-condensing
- Power Requirements:** 100 to 240 VAC, 50 to 60 Hz, 1000 W max.

OpenVPX Compatibility

The Model 8257A is compatible with the following module profile, as defined by the VITA 65 OpenVPX Specification: SLT3-PAY-1F1U1S1S1U2F1H-14.6.11-n



SOSA ALIGNED COMPANION PRODUCTS

Model	Description
5550	8-Channel A/D & D/A Zynq UltraScale+ RFSoc Processor
5553	8-Channel A/D & D/A Zynq UltraScale+ RFSoc Gen 3 Processor
5901-550	Rear Transition Module for 555x

LIFETIME SUPPORT FOR QUARTZ PRODUCTS

Mercury offers the worldwide military embedded computing community shorter development time, reliable, rugged solutions for a variety of environments, reduced costs, and mature software development tools. We offer free lifetime support from our engineering staff, which customers can depend on through phone and email, as well as software updates. Take advantage of our 40 years of experience in delivering high-performance radar, communications, SIGINT, EW, and data acquisition MIL-Aero solutions worldwide.

ORDERING INFORMATION

Model	Description
8257A	SOSA aligned 1-Slot 3U VPX Development Chassis for Quartz Products

Options	Description
-110	Dual MPO optical interfaces

Contact Mercury for compatible option combinations and complete specifications.



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