

Customizable Rugged, Featherweight COM Express SBC System

The Perfect Lightweight, Customizable, Field-friendly Compute and Storage Solution

Weighing in at a SWaP-friendly 7.5lb, designed specifically for demanding field applications, and featuring COM Express technology, **LCR Embedded Systems' fully integrated, forced convection cooled, customizable, featherweight COM Express Single Board Computer System** (shown below) breaks new ground for demanding applications that require lightweight, rugged, compact compute and storage such as harvesting and streaming sensor and video data in the field.

The COM Express System features a 6th generation Intel Xeon Core i7 (Skylake) Mobile Server/Embedded processor with up to 32GB DDR4 memory, and dual DisplayPort outputs. An optional Graphics Processing Unit (GPU) provides additional DisplayPort/HDMI options, and HD video processing support. In addition, LCR Embedded Systems' thermal layer is capable of removing up to 100W of heat, enabling you to take full advantage of processor performance.

- Weighs less than 8 lb; ideal for highly mobile field applications such as UAVs, man-pack, ground mobile
- Super-efficient, rugged, customizable chassis design
- COM Express featuring superior cooling and processing
- Available in multiple configurations for demanding applications
- Optional wireless/WiFi capability for fast communications in a lightweight package
- Can ship with or without the operating system of your choice
- Space for up to two high-capacity removable SSD hard drives
- Customizable I/O to meet your application requirements



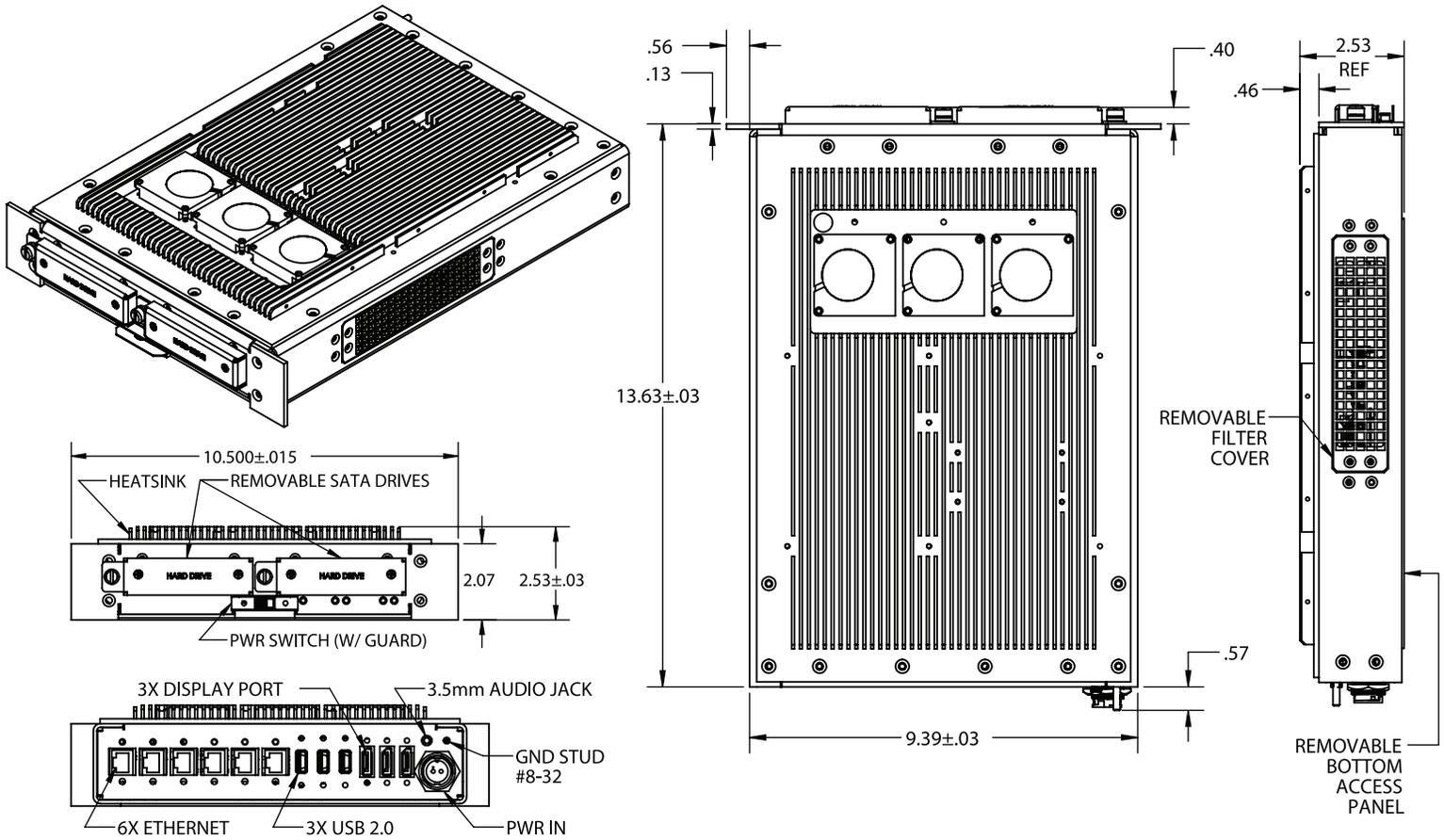
COM Express® + GPU Embedded System

This system combines Intel Skylake x86 processors with high-end NVIDIA Pascal Graphics Processing Units (GPU) all into a ruggedized small form factor embedded system. Choose from highest-end, high-performance models or from low-powered extended temperature models all ideal for high-end encode/decode video applications or GPGPU CUDA processing applications.

This embedded system exposes all of the latest generation interconnect including: Gigabit Ethernet, USB 3.0 and 2.0, DisplayPort++, VGA, LVDS, SATA III, GPIO, I2C, mSATA, miniPCIe, PCIe/104, and SD Card Expansion. This embedded system uses all locking, ruggedized positive latching connectors and eases the challenge of cooling multiple processors with the use of our Unified Thermal Extraction Baseplate which can be mounted directly into an enclosure or chassis for further thermal dissipation.

High-Performance Compute/Storage with Major SWaP Savings

The system can ship with or without a choice of operating systems supported by LCR Embedded Systems, such as Red Hat Linux, Ubuntu, and others depending on licensing. Wireless/WiFi communications can be supported, as well as customizable I/O to support a variety of inputs, connections, or displays. The system can cool up to 100W, leaving more than enough thermal headroom to support significant processing. Chassis and case options are also available.



Electrical

Input Power:

Nominal Input Voltage: +24 VDC;
+12V to +48VDC available on request
Max Power Consumption: 100W

Typical Power Usage:

Idle: 46W
Linux CPU Stress Test: 48.4W
Win7 GPU Stress Test: 108.4W
Win7 CPU/GPU Stress Test: 127W

Slots:

2 miniPCIe or 2 PMC/XMC

Physical

Dimensions:

2.59" (H) x 10.5" (W) x 13.63" (D)

Weight:

7.5lb fully populated

Mounting:

Half-size rackmount

Construction:

Aluminum, clear chem film plating per MIL-DTL-5541
Powdercoat surfaces black per FED-STD-595A Color 27038
Fine textured finish per paint detail

Cooling

Method:

Forced convection through top heatsink

Dissipation:

Thermal loads up to 100W

Environmental

Operating/Storage Temperature:

0 to 60 C (32 to 140 F) operating
-40 to 75 C (-40 to 167 F) storage

Shock/Vibration:

Designed to MIL-STD-810G
10G 11ms half-sine

Storage and I/O

Options include the following, but can be customized on request:

2x Removable SSD drive bays
6x Ethernet
3x USB 2.0
3x Display Port
1x Audio Jack 3.5mm
1x GND Stud (8-32)
1x Power Input