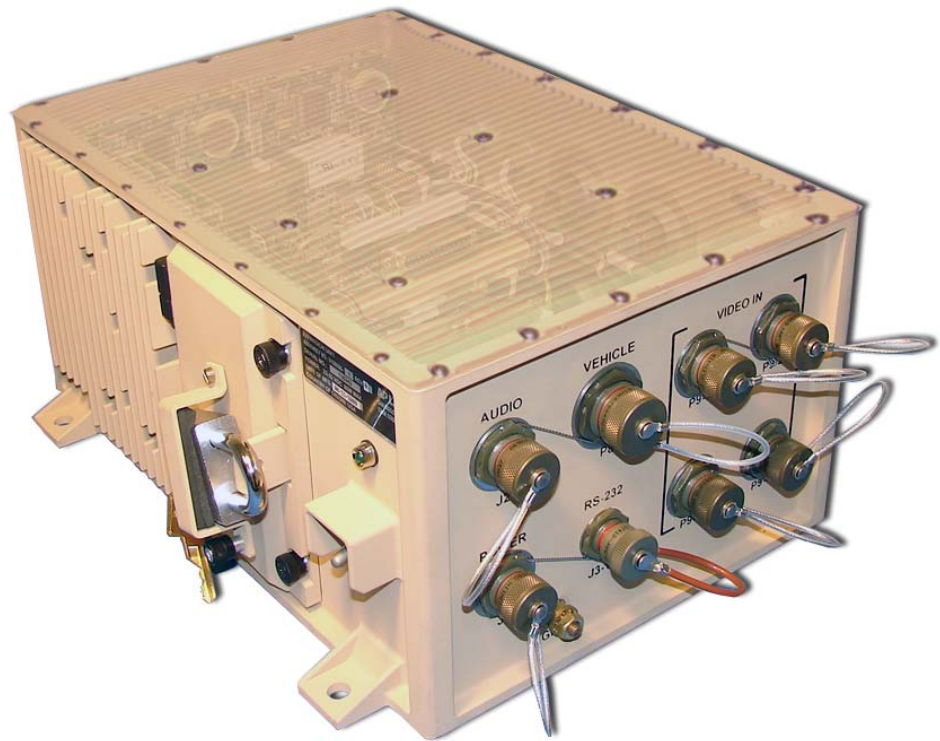


Vehicle Expansion Unit

Multi-Processor Multi-Function Embedded Computer



The Vehicle Expansion Unit (EU) is a highly scalable embedded computer system that is available with a wide selection of processor, storage, power and interface options. The compact footprint and low power makes it the ideal solution for applications requiring both performance and reduced SWaP (Size, Weight & Power).

Based on years of AP Labs design experience for military vehicles and avionics platforms, the EU provides reliable operation and full compliance in a wide range of rugged environments.

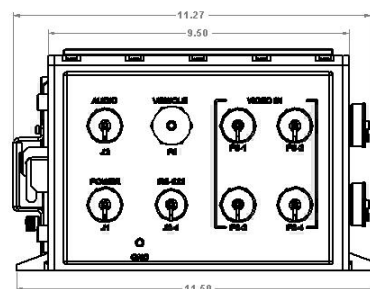
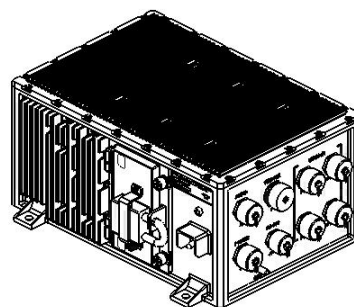
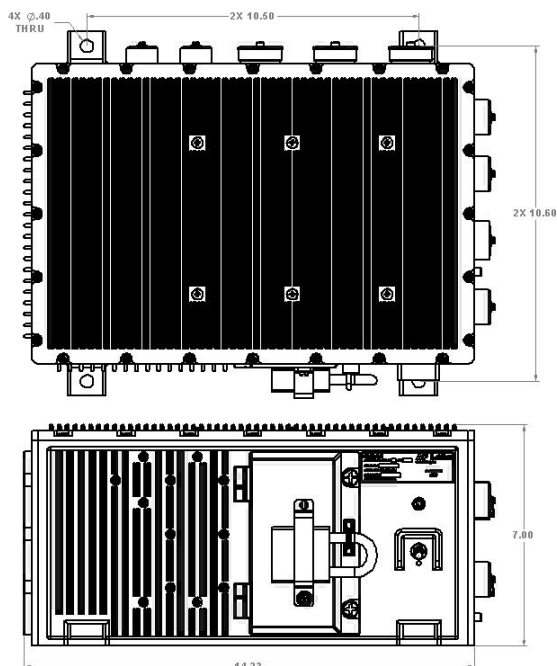
The flexibility in processing power, data throughput, storage and interface options make it the clear choice for demanding military vehicle applications such as C4I, Mission Planning and Data Recording.

- Up to three independent processors
- Intel Core2Duo & Atom processor options
- Efficient thermal design supports fanless operation in severe environments
- Dual Gigabit Ethernet ports for each processor
- Gigabit Ethernet Switch — 8-port, managed or unmanaged
- Internal Solid State Drives, fixed or removable
- Vehicle Diagnostic interface
- MPEG Video Encoder, 4 channels
- Optional interfaces— ARINC429, MIL-STD-1553, RS-232, RS-422, GPS, GPIO
- Compliant with MIL-STD-1275 vehicle power
- Compact Form Factor (9.5" x 14.5" x 7")
- Delivered with Linux or Windows operating systems installed



AP Labs
Your Systems Partner from Concept to Production

Vehicle EU Outline Dimensions



Specifications

Processors:	Three independent processors - Intel Core2Duo—1.06GHz, 1.6GHz or 2.2GHz - Intel Atom—1.3GHz
RAM:	1GB, 2GB or 4GB DDR2—per Processor
Network:	2 x Gigabit Ethernet ports—per Processor
Ethernet Switch:	8-port Gigabit Ethernet Switch Managed or unmanaged
Storage:	Solid State Drives, capacity up to 512GB Fixed or removable SATA 2.0 interface Optional padlock for access door
Serial:	1 x RS-232 ports 4 x RS-422 ports 2 x USB
Vehicle Diagnostic Interface:	SAE J1939 SAE J1587
Video Encoder:	4 NTSC/Pal analog video inputs Real-time MPEG4 compression Video Streams output over Ethernet
Maintenance:	VGA, RS-232, USB available behind drive access door

Avionics interfaces	
(Option):	ARINC 429, 3 receive channels, 2 transmit channels MIL-STD-1553, 2 redundant channels
GPS (Option):	Includes RF interface to external antenna
Power Supply:	28VDC input, MIL-STD-1275 (Vehicle)
Operating System:	Linux or Windows

ENVIRONMENTAL:

Operating Temperature:	-20°C to +55°C (Core2Duo)
Temperature:	-40°C to +85°C (Atom)

Shock:	MIL-STD-810E
Vibration:	MIL-STD-810E
EMI/RFI:	MIL-STD-461E
Humidity:	95% non-condensing

SWaP:

Size:	9.5" x 14.5" x 7"
Weight:	Less than 25 lbs
Power:	25—100W