

# HealthMax™ Integrated Vehicle Service



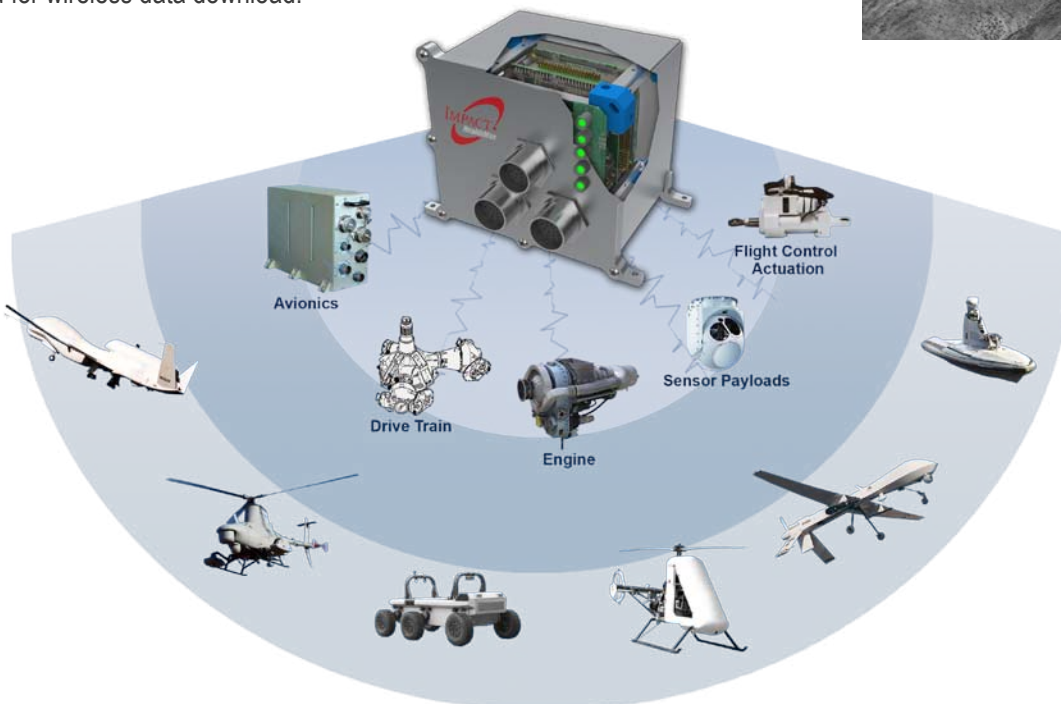
## *Low Cost, Highly Capable, Embeddable Data Acquisition and Processing*

The rugged and reliable HealthMax™-IVS4 employs an expandable COTS hardware platform to ingest, process, and store data from across the vehicle. The on-board element supports data acquisition from analog (IEPE, voltage, and current based signals) and digital sources, including ethernet, USB, RS485, with expandability to interface with the vehicle's MIL-STD-1553 and ARINC429 data bus.

HealthMax utilizes a high performance low power CPU, this helps to manage system configuration, process execution, and support in-situ execution of subsystem specific health modules.

The system's open architecture facilitates easy integration of software modules which can provide current health assessments from mission critical systems across the vehicle, including avionics, drive train, engine vibration and performance, flight control surfaces, and sensor payloads.

HealthMax houses 4GB of solid state memory to store either the raw, unprocessed data, processed data, or both depending on the user's needs. The system offloads the stored data via the wired digital output methods presented above or can be configured for wireless data download.



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# Low Cost, Highly Capable, Embeddable Data Acquisition and Processing

## Benefits:

- Improved Mission Reliability
- Increased Time on Target
- Increased Readiness
- Total Asset Health Visibility
- Lower Total Ownership Cost

## Features Overview:

- Comprised of COTS PC104 Hardware
- Ruggedize Design Suitable for On-Vehicle Applications
- Supports IEPE, Voltage, and Current Sensor Acquisition
- Provides Alias-Free High-Bandwidth Data
- Supports Ethernet, USB, RS485 Digital I/O
  - Expandable to MIL-STD-1553, ARINC429
- Supports Centralized or Distributed Processing
- Supports Integration of 3rd Party Functionality

## Specifications:

Capability	Gen4	
Number of sensor inputs (simultaneous)	32 (8) or 64 (16)	
Sampling Frequency	~65kS/s	
Sampling precision	12-bit 16-bit (future)	
Cutoff Filter (order)	Yes (4 <sup>th</sup> -order)	
Filter Cutoff Frequency	40kHz	
Programmable Gain(s)	1, 10, 100	
Supported Digital I/O	Ethernet, USB, RS485, ARINC429, 1553	
CPU type	Intel Atom	
CPU Clock Speed	1.6GHz	
RAM	1GB (2GB opt)	
Internal Solid-State Storage Capacity	4GB	
Operating Temperature	-40F to +160F	
Weight	3 lbs. (32-input)	
Dimensions H x W x D inches	Footprint	5 x 6.1 x 6.1 (32-input)
	Enclosure	5 x 5 x 5 (32-input)

