



CEX 2.0 AVIONICS

I/O EXPANSION AND BUS MANAGEMENT UNIT

High reliability I/O expansion board for Veronte Autopilot powered vehicles. Includes network management and bus protection functionalities : CAN Bus isolation, data concentrator, etc.

ADVANCED I/O MANAGEMENT



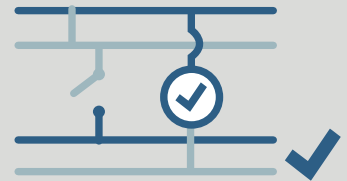
I/O EXPANSION MODULE

Extend the I/O ports in Veronte Autopilot: RS232, RS485, PWM, ARINC, etc.



NETWORK OPTIMIZATION

CAN Bus isolator, sub-network configuration and data concentrator.



BUS PROTECTION

Message filtering, device disconnection, babbling idiot failure detection, etc.



MAIN FEATURES

I/O Expansion	Increase the number of input and outputs
Data Concentrator	CAN Bus to serial, digital input, ARINC, etc
Network	Message filtering Sub-network generation
Wire Optimization	Long distances Robust to interferences
Bus Protection	Failure detection Babbling idiot failure
Bus Isolation	Device isolation
Certification	DO178-C, DO254 & DO160-G compliant
Device Interface	Sensors, actuators, ESC, ADS-B, payload, etc.

I/O Extension & Data Interfaces

Buses	2x CAN Bus 2x RS232 1x RS485 1x I2C
ARINC 429	5x Rx 1x Tx
Digital I/O	8x 5V PWM 4x 5V ECAP
Analog I	2x 3.3V 2x 5V 2x12V 2x36V
Power Outputs	1x 3.3VDC (100 mA) 1x 5VDC (100mA)
CAN Bus	Dual redundant Galvanic isolation
CAN Terminal Resistor	External terminal resistor

Network Management

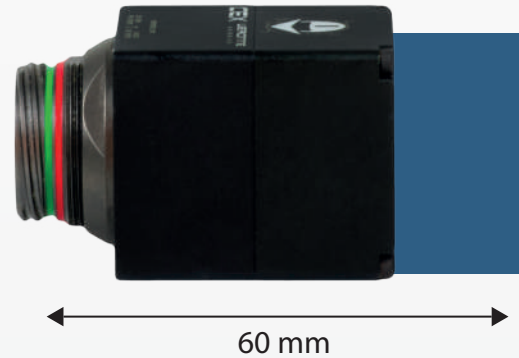
Data Concentrator	I/O to CAN bus I/O to serial
Sub-Networks	Advanced architectures Bus load reduction
Isolation	Peripheral isolation
Failure Detection	Babbling idiot failure Bus failures
Filtering	Message filtering
Redundancy	Voting algorithms Redundancy management

ROBUST CONSTRUCTION

Circuit Protections	ESD, over temp, short circuit, galvanic isolation
Power Protection	Reverse polarity protection
Connector	68 Pin Threaded Robust to vibrations
Construction	Anodized aluminium IP68
Temperature	-40 to 60°C
Weight	115g

SAFETY & CERTIFICATION

Power Input	6 – 36VDC Redundant power input
Power	3.5W



[P005452] Veronte Avionics: CEX 2.0