



# 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



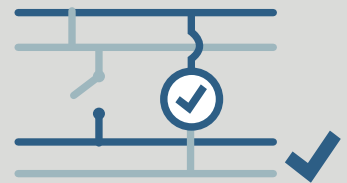
#### I/O EXPANSION MODULE

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 Inputs	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	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	117g

## SAFETY & CERTIFICATION

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

