

CrossCore XA All-Integrated

– advanced communication gateway



CrossCore XA All-Integrated is a slim and highly integrated communication gateway with functions like wireless communication and GPS positioning. It is designed to be integrated directly into a distributed control system solution. With its state-of-the-art environmental characteristics it can be used in very harsh environments.

CrossCore XA All-Integrated is a powerful controller module and communication gateway designed to give remote access functionality to distributed control systems. The open software platform and powerful features enable easy implementation of advanced machine controls and communication functionality.

Open platform

The Linux based software platform in CrossCore XA All-Integrated gives system designers an open environment where they can use programming tools of their preference. Applications can be developed in C/C++ or with an application framework e.g. IEC 61131-3 compliant tools like CoDeSys. There is also the opportunity to adopt ready made Linux applications or application add-ons.

Easy configuration

The built-in webserver in CrossCore XA All-Integrated makes basic configuration and loading of application software easy.

Advanced communication

Data collection for system diagnostics and prognostics, operator support systems and communication with external systems can be closely integrated with the vehicle-control system using the reliable and robust communication interfaces in CrossCore XA All-Integrated.

With dual CAN interfaces the unit can act as the central controller in a distributed control system and also be a gateway between two separate networks.

The Ethernet interface enables easy integration of Ethernet-based information systems and a CAN-bus control system. USB interfaces facilitate e.g. high-speed data transfer to and from other subsystems and devices. To serve in a fleet management application, CrossCore XA All-Integrated can also be equipped with GPS and Accelerometer.

Built for harsh environments

CrossCore XA All-Integrated has state-of-the-art environmental characteristics. The aluminium enclosure is silicon moulded and gives the unit extraordinary resistance to shock loads and water/dust intrusion.

CrossCore XA All-Integrated has great tolerance against voltage fluctuations.

The robust DIN M12 connectors ensure reliable communication with other system components. The interfaces are well protected against electrical disturbances. Galvanically isolated CAN interfaces are optional.



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SPECIFICATIONS

Kernel

Processor	ARM9, Atmel AT91SAM9263, 240 Mhz
Program memory	256 MB NAND flash
RAM	128 MB SDRAM
Data storage	2 GB flash memory, optionally up to 8 GB

HMI

Status LED	Tricolor led status indicator with configurable behaviour
CAN status	Tricolor LED according to CAN-CiA DR-303
Ethernet status	Activity and Link LED indicator
Embedded web server	Built-in web server for configuration and program loading

Interface

CAN	2 x CAN ISO 11898, 2.0B, max 1 Mbit/s
USB	1 x host, 1 x device, V 2.0, Full-Speed
Ethernet	1 x 10/100 Base-T
Serial	1 x RS232
Digital I/O	8 digital Inputs, 2 Digital Outputs
GPS	NMEA-0183
GPRS / 3G	Quad band GPRS modem or optional 3G modem
WLAN	802.11 b/g
Bluetooth	Optional, class 1 range
Accelerometer	Optional, triaxial

Software

Operating system	Linux
Application framework	Support for CoDeSys

Power

Voltage	24 VDC nominal
Current	Typ. 160 mA at 24 VDC
Energy backup	For safe shut down at power loss

Environment

IP class	IP67
EMC conformity	2004/108/EC, EN61000-6-2:2005, EN61000-6-4:2007, ISO 14982:1998
Vibration	0.005-0.03 g ² /Hz 5-1000 Hz 3,72 g (RMS)
Shock	30 g/6 ms
Temperature range [°C]	-25+ to +70 operating -40 to +85 storage

Enclosure

Material	Die cast aluminium
Treatment	White cromated Powder coated paint
Connectors	DIN M12 TNC for antennas

Dimensions

Size (W x H x D) (mm)	200 x 232 x 55
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