

OPEN-XS CNC

OPEN-XS, the entry-level hardware platform of **OPENcontrol family**, combines high computing power and modularity to an extremely competitive price. Based on CPU Intel Atom 1.6 GHz, OPEN-XS is able to simultaneously manage up to 2 processes, each one executing an ISO program, and up to 8 interpolated axes.

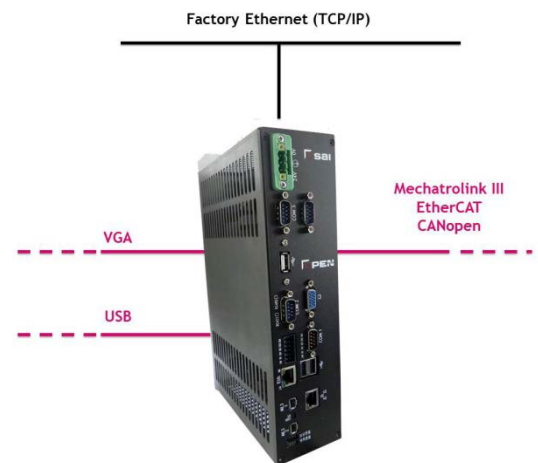
Thanks to its characteristics, OPEN-XS allows obtaining high finishing in workpiece machining and optimization in working centers management:

- Gantry and dual axes management
- Look-ahead with 256 pre-calculated blocks
- Velocity Feed Forward (VFF)
- Jerk control using advanced algorithms
- Management of tool magazine, tool life, random tool, multi-pocket tool
- Multi-axis Electronic CAM
- Cross Compensation

The system can be completely customized through a graphical HMI software and an embedded PLC offering:

- Multi-tasking real time execution
- Up to 250 tasks with 10 priority levels
- Task cycle time with 2ms minimum scheduling
- More than 450 predefined functions
- Possibility to interpolate machine axes also from the logic
- Possibility to include customized functions and external software algorithms

OPEN-XS offers a wide range of hardware solutions. Digital configurations (EtherCAT, Mechatrolink III, CANopen) ensure the best axes control, while bridge modules for Analog and P&D axes management, including I/Os, are optimized to guarantee the best performance/price ratio.



OPEN-XS can be composed of several modules:

- The **real-time Control Unit** is a complete entry-level system able to manage servo drives and I/Os through a digital fieldbus and to execute all the CNC software both real-time and HMI.
- The **4 axes slave module**, connected to the CNC unit via EtherCAT bus, is an integrated solution offering a wide set of digital and analog I/Os and the control of 4 Axes driven with an **Analog** or **Pulse&Direction** signal with position transducer. To obtain the maximum number of managed axes, OPEN-XS can be connected to more than one bridge module.
- The **6 axes slave module**, which is optimized for the control of 5 axes machine with gantry axis, follows the same philosophy but provides more resources.



When the wide number of available I/Os is not sufficient, the system can be further expanded using OPENrio SL, the new I/Os modular system based on EtherCAT bus.



Technical Data

	OPEN-XS MLIII	OPEN-XS EtherCAT
CPU	Intel® Atom™ 1.6GHz	
Storage	Compact Flash 1GB - 4 GB / SSD 128GB	
RAM	2 GB	
Monitor port	1 x VGA	
Ethernet	1 x 100/1000 Mbps	
USB	3 x 2.0	
Serial Line	2 x RS232 - 1 x RS232/422/485	
Fast Input	4	
Fast Output	3	
Emergency Stop	1	
Operating System	Single O.S. (Windows CE6.0) Dual O.S. Windows CE (Windows CE6.0 + WES7 32 bit)	
Retentive memory	256Kb	
Power Supply	24V dc	
Controlled axes	Max 8	
Primary Fieldbus	Mechatrolink III	EtherCAT (SoE e CoE)
Secondary Fieldbus	EtherCAT (SoE and CoE profiles) CANopen	CANopen

	A-432 4 Analog axes module	P-432 4 Pulse&Direction axes module
Number of axes	4 analog	4 Pulse&Direction
Axes feedback	Incremental encoder	
Digital Input	32	
Digital Output	32	
Analog Output	2 x 16 bit	-
Analog Input	4 x 12 bit	
Spindle Output	1 x analog out 16 bit	
Handwheel Input	1 x encoder ABZ	
Power Supply	24V dc	

	A-664 6 Analog axes module	P-632 6 Pulse & Direction axes module
Number of axes	6 Analog	6 Pulse & Direction
Axes feedback	Incremental encoder	
Digital Input	64	
Digital Output	64	
Analog Input	4 x 12 bit	
Spindle Output	1 x analog out 16 bit	
Handwheel Input	1 x encoder ABZ	
Power Supply	24V dc	