


open 
one

*High-class entry
level CNC*

osai 

COMPUTER NUMERICAL CONTROL

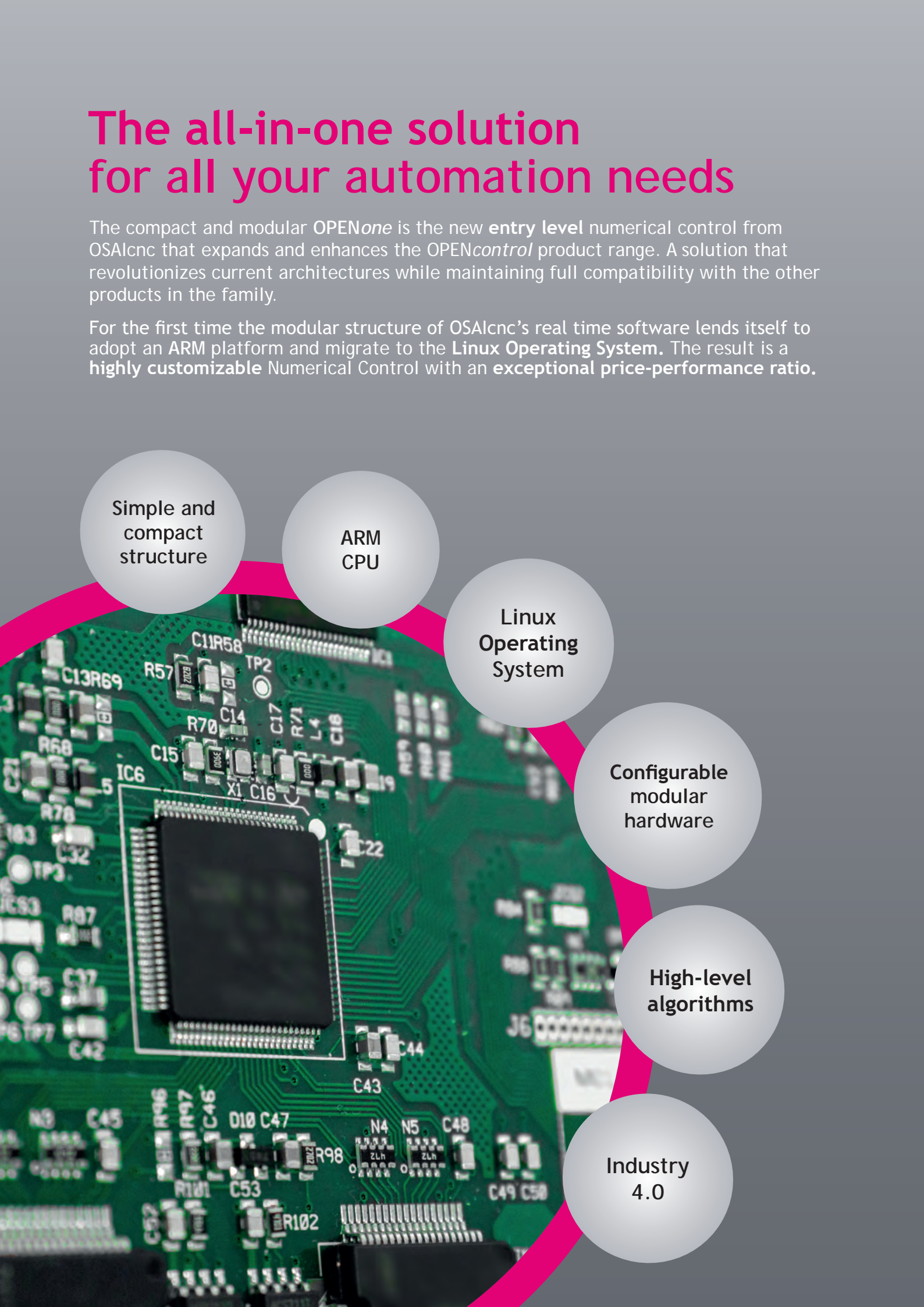
Flexible Automation

History and future

The all-in-one solution for all your automation needs

The compact and modular OPENone is the new **entry level** numerical control from OSAlcnc that expands and enhances the OPENcontrol product range. A solution that revolutionizes current architectures while maintaining full compatibility with the other products in the family.

For the first time the modular structure of OSAlcnc's real time software lends itself to adopt an ARM platform and migrate to the **Linux Operating System**. The result is a **highly customizable** Numerical Control with an **exceptional price-performance ratio**.



Simple and compact structure

ARM CPU

Linux Operating System

Configurable modular hardware

High-level algorithms

Industry 4.0

Create your ideal configuration

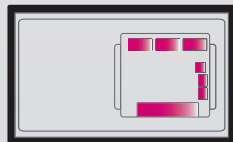
OPENone has a level of hardware configurability that allows you to create the ideal solution for all your needs, due to its scope for combining several elements:

- 01** *Black-box*
CNC module networked to a dedicated PC supporting the user software EtherCAT Fieldbus. Optional CAN Fieldbus
- 02** *I/O expansion*
Extensive number of local digital and analog I/O points. Adaptable for supplementary expansion (I/O plus Analog or P/D axes)
- 03** *10.1" Touch Screen display*

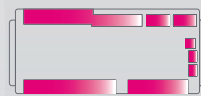
Modular combinations



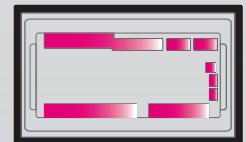
Black-box



Black-box
+ display



Black-box
+ I/O



Black-box
+ I/O
+ display

Panel CNC 10,1"

CNC
black-
box

CNC black-box
I/O expansion



Modular realtime software

Optimized for three-axis machines, OPENone is capable of managing, without compromise, up to 8 axes, 4 of which can be interpolated.

Designed for markets that you'd never have associated with OSAlcnc, OPENone offers, at a competitive price, the opportunity to benefit from the advanced software features of the OPENcontrol series CNCs.

OPENone's real-time technological software, now integrated with LINUX O.S., is the **well-established, reliable and customizable modular software of OSAlcnc**. This provides the base version with its high-functionality which can be augmented with many high-level options.

Feature highlights:

- Gantry and dual axes management
- Look-ahead of 256 precalculated blocks
- Velocity Feed Forward (VFF)
- Advanced algorithm Jerk control
- Tool and magazine management
- Multi-axis electronic cam
- Automatic control of a tangential axis
- 4 th axis management with Tool Center Point (TCP)

Integrated PLC:

- IEC 61131 Standard
- Real-time multi-task execution
- Up to 250 tasks with 10 levels of priority
- 2ms minimum cycle time for scheduled tasks
- More than 450 predefined functions
- Capability to interpolate all machine axes
- Capability to add custom functions and external software algorithms
- Predefined plug-and-play machine logic
- Integrated development environment (IDE) with high-level debugging functions

ARM
CPU

Linux
OS

High-level
algorithms

Technical features

CNC Module

Min. interpolator tick	2 ms.
Max interpolated axes	4
Max axes number	8
Processes	2
Retentive memory	YES
CNC Module Ports	
Ethernet 10/100/1000	1
RS232/422/485	1
USB	2 x 2.0
Video	HDMI
Fieldbus 1	EtherCAT
Fieldbus 2	CAN
Integrated I/O	
Fast Output (aux machine enable)	YES
Fast Input	1
Analog out 12 bit (Spindle etc.)	1
ABZ Encoder In (Spindle, Handwheel etc.)	1

I/O Expansion Module

Digital Input	24
Digital Output	16
Digital I/O status LEDs	YES
Analog Input 12 bit	2
ABZ Encoder In (Handwheel etc.)	1

Video Module

Display	10,1"
Resolution	1280x800
Brightness	700cd
Viewing angle	>170°
Touch Screen	YES, resistive
Protection	IP65 on front





- Countries where OSAIcnc sells products and services
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