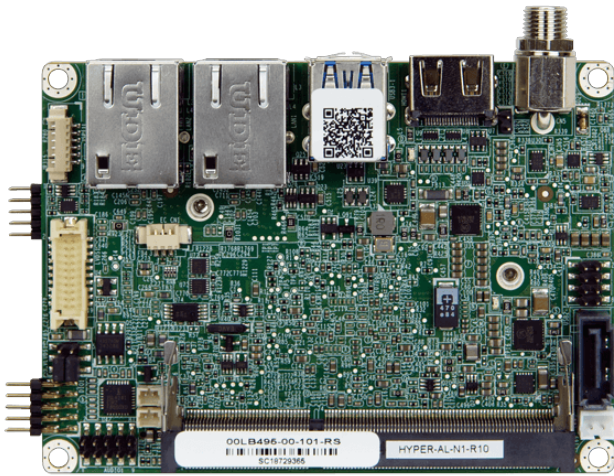


HYPER-AL

PICO-ITX SBC supports Intel® 14nm Apollo Lake on-board SoC with DDR3L, HDMI™, LVDS, dual GbE, USB 3.0, SATA, M.2 and RoHS



Features

- » Compact 2.5" Pico-ITX from factor (100 x 72 mm)
- » Intel® Celeron® N3350 1.1GHz on-board SoC (up to 2.4GHz, dual-core, TDP=6W)
- » Flexible expansion with M.2 A key 2230 and M.2 B key 2242 support
- » HDMI™ and internal LVDS for independent display
- » 12V only single voltage design for AT/ATX power by DC power jack

Specifications

系统	
CPU	Intel® Celeron® N3350 on-board SoC (up to 2.4GHz, dual-core, 2M Cache, TDP=6W)
内存	One 204-pin 1866/1600MHz single-channel DDR3L SDRAM unbuffered SO-DIMM
内存上限	8GB
物理特性	
尺寸 (LxWxH) (mm)	100 X 72
净重	250g
存储	
存储	1 x SATA :3Gb/s with 5V power connector
I/O 接口	
显示输出	1 x HDMI™ 1 x LVDS :2x10 pin, single channel, 24bit
网络	2 x LAN :LAN1: Realtek RTL8111H controller LAN2: Realtek RTL8111H controller
音频	1 x HD Audio :2x5 pin, support 7.1 channel HD audiou by AC-KIT-892HD-R10)
I/O接口	1 x 内部RS-232 :1x9 pin, p=1.25 2 x 外部 USB 3.2 Gen1x1 :on rear IO 2 x 内部 USB 2.0 :2x4 pin, p=2.0 1 x DIO :8-bit DIO (2x5 pin, P=2.0)
扩展	2 x M.2(NGFF) :1 X 2230 A key(PCIe,USB),1 X2242 B Key(USB.SATA)
电源	
电源功耗	12V@2.36A (Intel® Celeron® N3350 with 8GB 1600MHz DDR3L memory)
电源供电	12V DC input only (DC jack) Support AT/ATX mode
环境	
操作温度	-20°C ~ 60°C
存储温度	-30°C ~ 70°C
Humidity	5% ~ 95%, non-condensing
认证	
Safety & EMC	CE/FCC compliant

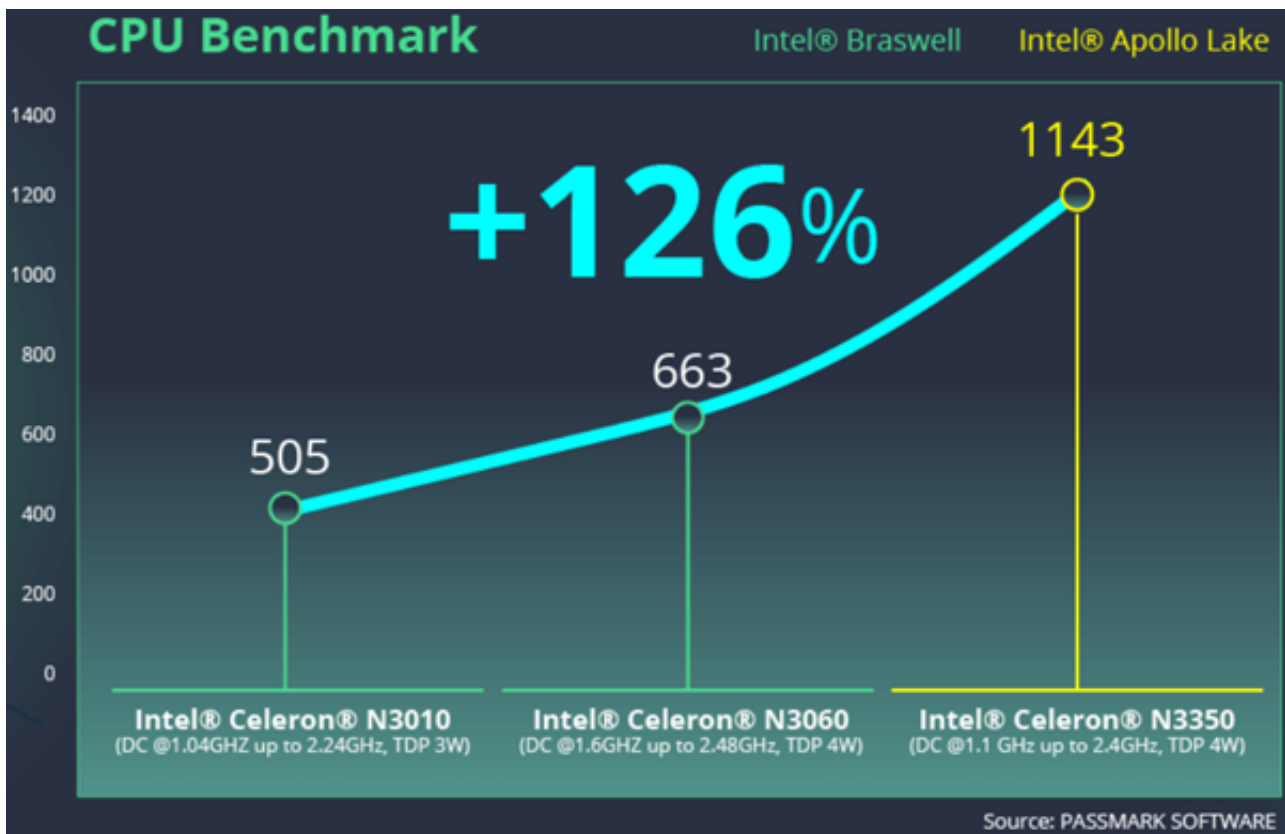
Ordering Information

HYPER-AL-N1-R10	PICO-ITX SBC supports Intel® 14nm dual-core Celeron® N3350 2.4GHz on-board SoC with HDMI™, LVDS, dual LAN, M.2, USB3.0, SATA 3Gb/s, COM and RoHS
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Packing List

1 x HYPER-AL single board computer(heat spreader by default)	1 x COM port cable(32005-003500-200-RS)
1 x SATA cable kit(32801-000201-300-RS)	1 x QIG (Quick Installation Guide)

1.2X Improved CPU Performance on Quad-core Intel® Celeron® N3350 Processor



IEI's HYPER-AL is equipped with a high-performance Intel® Celeron® N3350 processor (codenamed Apollo Lake), which is the successor to the Braswell family and based on 1.1GHz typical frequency and rising to a 2.4GHz in burst mode. By leveraging IEI's expertise and the cutting-edge technologies, the HYPER-AL delivers performance and flexibility to power the next generation of edge computing applications, and usable even in confined spaces.

14 nm Technology Process

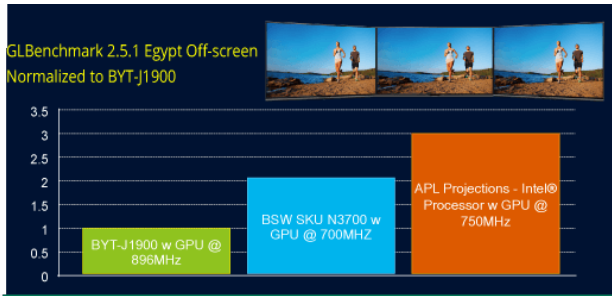
Intel® Celeron® N3350 CPU performance than the previous generation, Intel® Celeron® N3010

Improved memory performance

DDR3L up to 1866 MHz compared to 1600 MHz of Braswell

Three Times Graphics Performance

Intel® Apollo Lake built with Intel® Gen9 graphics engine same as Skylake integrated on the SoC provides up to 18 execution units and supports up to 4K decode and encode capabilities for HEVC4, H.264, VP8, SVC and MVC. The Graphics performance is estimated to be three times higher in contrast to the Bay Trail.



Improved 3D & Full-HD Media Performance:

- » Fast HD video acceleration over previous generation
- » Up to 15 simultaneous 1080p30 decode streams
- » Fast graphics and media performance @ ISO power over previous generation

Dual Independent Display for Multi-task 24-bit LVDS + 4K UHD HDMI™

The HYPER-AL includes LVDS and HDMI™ 1.4b delivering brilliant 4K2K 30Hz resolution, increasing productivity and giving you enhanced multitasking capabilities.

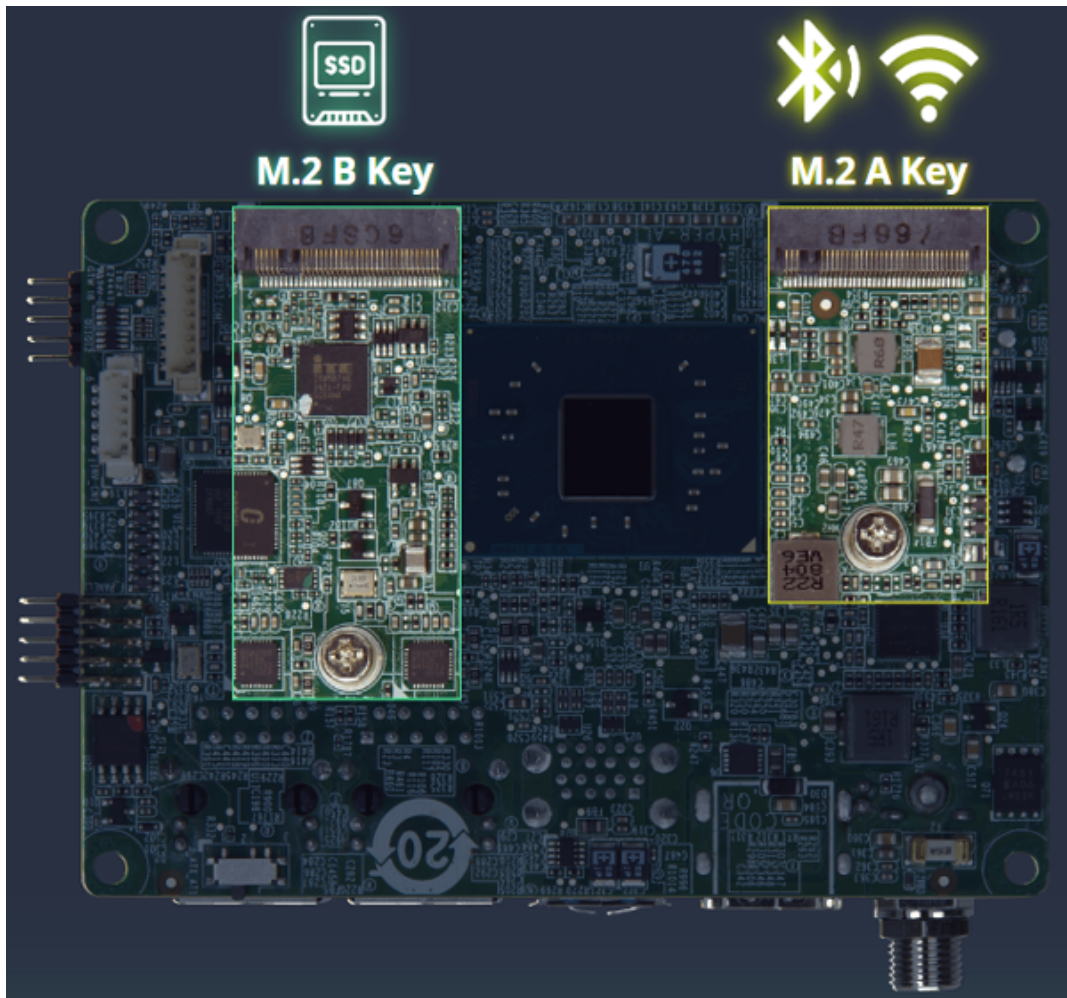
HDMI™: 1.4b up to 3840x2160 @ 30Hz

LVDS: 2x10 pin, single channel, 24-bit, up to 1366x768

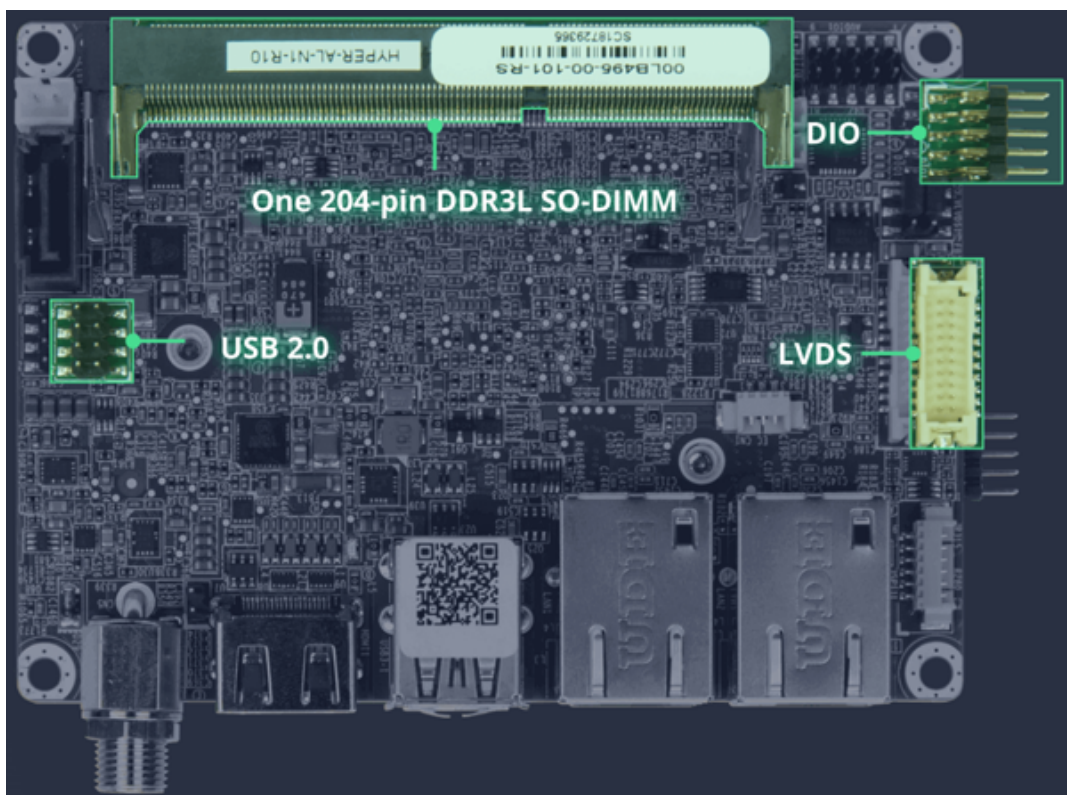


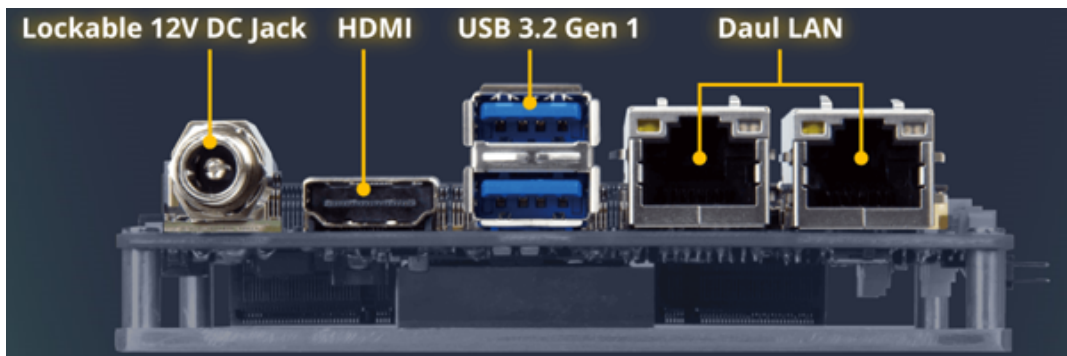
M.2 Expansion for WLAN, Bluetooth and SSD

With M.2 A-key 2230 slot and B-key 2242 slot, the HYPER-AL can support Bluetooth, Wi-Fi and SSD storage.



Product Overview





Applications



Autonomous Robot



Panel PC