

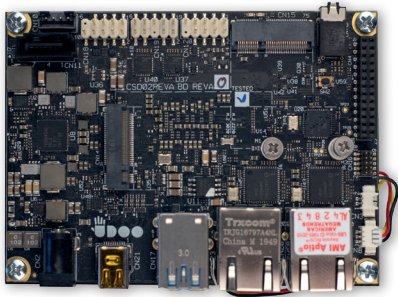
# Development Kits for Rapid POC



## UDOO VISION

Pico-ITX Single Board Computer with the Intel® Atom® X Series, Intel® Celeron® N Series and Intel® Pentium® N Series (formerly Apollo Lake) Processors

Pico-ITX Single Board Computer for Computer Vision applications and rapid prototypes

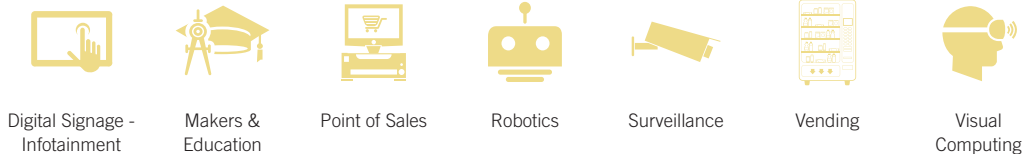


### HIGHLIGHTS

<b>CPU</b> Intel® Atom® X Series, Intel® Celeron® N Series and Intel® Pentium® N Series	<b>CONNECTIVITY</b> 1x GbE; 1x USB 3.0; 1x USB 2.0; M.2 Socket 1 Key E 2230 slot for Wi-Fi+BTLE modules
<b>GRAPHICS</b> Integrated Graphics, three independent display support	<b>MEMORY</b> up to 8GB single-/dual-/quad-channel LPDDR4



### MAIN FIELDS OF APPLICATION



### FEATURES

<b>Processor</b> Intel® Atom® x7-E3950 Quad Core @1.6 GHz (Burst 2.0GHz), 2MB L2 cache, 12W TDP Intel® Atom® x5-E3940 Quad Core @1.6 GHz (Burst 1.8GHz), 2MB L2 cache, 9W TDP Intel® Pentium® N4200 Quad Core @1.1GHz (burst 2.5GHz), 2MB L2 cache, 6W TDP Intel® Celeron® N3350 Dual Core @1.1GHz (burst 2.4GHz), 2MB L2 cache, 6W TDP	<b>Networking</b> Dual Gigabit Ethernet connector WWAN (modem) M.2 Socket 2 Key B 2260 / 3042 slot (excludes SSD interface) Connectivity M.2 Socket 1 Key E 2230 slot for Wi-Fi+BTLE modules
<b>Max Cores</b> 4	<b>USB</b> USB 3.0 Dual Type-A connector Internal USB 2.0 Dual pin header
<b>Max Thread</b> 4	<b>Audio</b> HD audio codec Line out + microphone on TRSS connector
<b>Memory</b> 32-bit single-/dual-/quad-channel LPDDR4 soldered on-board, up to 2400 MT/s Max memory size 8GB	<b>Serial Ports</b> 2x RS-232/RS-422/RS-485 Serial ports on internal pin header
<b>Graphics</b> Integrated Intel® HD Graphics 500 series controller with up to 18 Execution Units HW decoding of HEVC(H.265), H.264, VP8, VP9, MPEG2, VC-1, WMV9, JPEG/MJPEG formats HW encoding of HEVC(H.265), H.264, MVC, VP8, VP9 and JPEG/MPEG formats Three independent display supported	<b>Other Interfaces</b> miniSIM slot for M.2 modems (combo with microSD slot) 8x GPIOs connector FAN connector Buttons / activity LED front panel header connector Optional TPM 2.0 on-board ATMEGA ATmega32u4 microcontroller with Arduino Leonardo compatible header
<b>Video Interfaces</b> Multimode DP++ on MiniDP connector eDP on socket header connector	<b>Power Supply</b> +12V <sub>DC</sub> Cabled coin cell battery for RTC
<b>Video Resolution</b> DP: up to 4096x2160 @ 60Hz HDMI: up to 3840x2160 @ 30Hz eDP: up to 3840x2160 @ 60Hz	<b>Operating System</b> Windows 10 Enterprise (64-bit) Windows 10 IoT Core Linux LTS (64-bit) Yocto (64-bit)
<b>Mass Storage</b> eMMC 5.1 drive on-board, up to 64GB SATA Gen3 7p M connector SSD M.2 Socket 2 Key B lot, size 2260 / 3042 (excludes WWAN modules) microSD Card slot (combo with miniSIM slot)	<b>Operating Temperature*</b> 0°C to +60°C (Commercial temperature range)
	<b>Dimensions</b> 100 x 72 mm (3,93" x 2,83")

\*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.



# UDOO VISION

Pico-ITX Single Board Computer with the Intel® Atom® X Series, Intel® Celeron® N Series and Intel® Pentium® N Series (formerly Apollo Lake) Processors

## BLOCK DIAGRAM

