



## NUC-APL

### Intel® Apollo Lake Fanless NUC System

- > Onboard Intel® Celeron® Processor J3455/N3350
- > Single DRAM Socket, Max. Up to 8GB DDR3 1866MHz
- > Rich I/O, 2 x COM, 2 x LAN, 4 x USB3.0, 1 x Audio, 2 x Antenna Mounting
- > Triple Display, 2 x HDMI, 1 x DP (DVI-I/VGA Factory Option)
- > Expansion Slot, M.2 Key-B, M.2 Key-E
- > Fanless Operating from 0°C ~ 60°C
- > DC Power Input +12V
- > Compact Size, 115mm x 111mm x 58mm
- > Supports VESA/Din-Rail Kit
- > TPM 2.0 (Factory Option)

#### + Spec

System Information	
<b>Processor</b>	Intel® Celeron® Processor J3455 (2M Cache, up to 2.3 GHz) Intel® Celeron® Processor N3350 (2M Cache, up to 2.4 GHz)
<b>System Memory</b>	1 x 204-pin SO-DIMM Socket, Max, Up to 8GB DDR3L 1866MHz
<b>BIOS Information</b>	AMI BIOS, 128Mbit SPI Flash ROM
<b>Watchdog Timer</b>	H/W Reset, 1sec. ~ 65535sec and 1sec. or 1min./step
<b>H/W Status Monitor</b>	Monitoring CPU Temperature, Voltage with Auto Throttling Control
<b>SBC</b>	NCM-APL
Expansion	
<b>Expansion</b>	1 x M.2 (Key-B, 2242/3042, PCIe, SATA, USB 3.0, USB 2.0, SIM Slot) 1 x M.2 (Key-E, 2230, PCIe, USB2.0)
Storage	
<b>Storage</b>	1 x 2.5" Drive Bay (7 or 9.5mm) 1 x M.2 (Key-B, 2242, SATA)
I/O	
<b>USB Port</b>	4 x USB 3.0 (5Gbps)
<b>COM Port</b>	1 x RS-232/422/485 (BIOS&Cable) 1 x RS-232
<b>Antenna</b>	2 x Antenna Mounting with Dust Cover
System Control	
<b>LED Indicator</b>	1 x Power on/off LED & Storage Access LED on front side
Display	
<b>Graphic Chipset</b>	Intel® HD Graphics 500
<b>Spec. &amp; Resolution</b>	2 x HDMI 1.4b: Max. Resolution 3840x2160@30Hz 1 x DP (DVI-I/VGA Factory Option): Max. Resolution 1920 x 1080@60Hz
<b>Multiple Display</b>	Triple Display
Audio	
<b>Audio Codec</b>	Realtek ALC888S
<b>Audio Interface</b>	1 x Audio Jack (Mic-in + Line-Out Combo)
Certifications	
<b>Certification Information</b>	CE, FCC Class A
Ethernet	
<b>LAN Chipset</b>	Realtek RTL8111E Gigabit Ethernet
<b>Ethernet Interface</b>	10/100/1000 Base-Tx Gigabit Ethernet Compatible
<b>LAN Port</b>	2 x RJ45
Power Requirement	
<b>DC Input</b>	+12V
<b>DC Input Connector</b>	Lockable DC Jack
<b>ACPI</b>	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant
<b>Power Mode</b>	AT/ATX (ATX is default setting)
<b>Adapter</b>	Input: 100 ~ 240Vdc/ 50 ~ 60Hz Output: 12V/5A AC-DC 60W Adapter
Mechanical & Environmental	
<b>Operating Temperature</b>	With extended temperature peripherals -10°C ~ 50°C (14°F ~ 122°F) with 0.2m/s air flow With extended temperature peripherals -10°C ~ 60°C (14°F ~ 140°F) with 0.5m/s air flow
<b>Storage Temperature</b>	-40°C ~ 75°C (-40°F ~ 167°F)
<b>Operating Humidity</b>	40°C @ 95% Relative Humidity, Non-condensing
<b>Dimension (W x L x H)</b>	115mm x 111mm x 58mm (4.53" x 4.37" x 2.28")



<b>Weight</b>	0.85KG (1.87lbs)
<b>Vibration Test</b>	With SSD: 5Grms, IEC 60068-2-64, Random, 10 ~ 500Hz, 30min/Axis, 3 Axis
<b>Shock Test</b>	With SDD : 55G, IEC 60068-2-27, Half Sine, 11ms, Z Axis
<b>Mounting Kit</b>	VESA/Din Rail Kit
<b>Drop</b>	ISTA 2A, IEC-60068-2-32 Test : Ed, 1 Corner, 3 Edges, 6 Faces
<b>Construction</b>	Aluminum + Metal
<b>Software Support</b>	
<b>OS Information</b>	Win 10, Linux
<b>Ordering Information</b>	
<b>Ordering Information</b>	NUC-APL-34-B1-1R Intel Celeron Processor J3455 Fanless NUC System NUC-APL-33-B1-1R Intel Celeron Processor N3350 Fanless NUC System