

VIA

## ARTiGO A820

Fanless low-profile gateway system with dual Ethernet and wireless connectivity options for enterprise IoT and M2M applications

### Features

- Fanless and ultra slim low profile (only 3cm height)
- Powered by NXP i.MX 6DualLite Cortex-A9
- Supports integrated graphics processing (GPU) for 3D/2D graphics acceleration
- Dual Ethernet support and wireless connectivity options available
- Linux BSP and customization services available

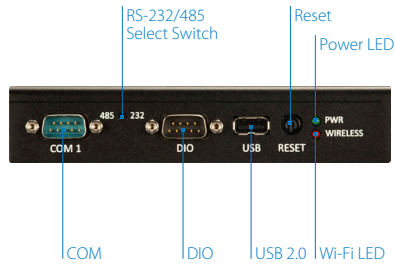


### Specifications

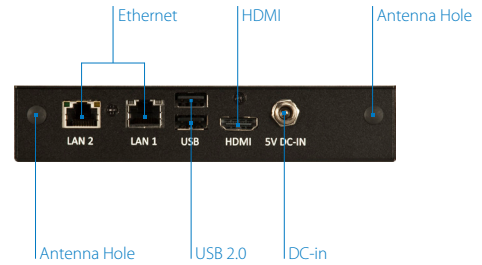
<b>Model Name</b>	<b>ARTiGO A820</b>
<b>Processor</b>	1.0GHz NXP i.MX 6DualLite dual-core Cortex-A9 SoC
<b>System Memory</b>	1GB DDR3 SDRAM onboard
<b>Storage</b>	4GB eMMC Flash memory Micro SD Card
<b>Graphics</b>	Vivante GC880 2 Independent, integrated 3D/2D graphics processing units Graphics engine support OpenGL® ES 2.0, OpenVG 1.1 hardware acceleration Support MPEG-2, VC1 video decoding up to 1080p
<b>LAN</b>	Micrel KSZ9031RNX Gigabit Ethernet Transceiver with RGMII support ASIX AX88772 USB2.0 to 10/100Mbps Fast Ethernet Controller
<b>HDMI</b>	Integrated HDMI 1.4 transmitter
<b>USB</b>	SMSC USB2514 USB 2.0 High Speed 4-port hub controller
<b>Expansion I/O</b>	1 miniPCIe slot
<b>Front Panel I/O</b>	1 USB 2.0 port 1 DIO port supports 8 GPIO (4 GPI+4 GPO) 1 COM port for RS232/RS485 supports 8-wire DTE mode with isolation feature 1 RS-232/485 select switch for COM port 2 LEDs for power & Wi-Fi status 1 Reset button
<b>Back Panel I/O</b>	1 HDMI port 2 USB 2.0 ports 1 Gigabit Ethernet port 1 10/100Mbps Ethernet port 2 Antenna holes for 3G/Wi-Fi 1 DC-in jack
<b>Bottom Panel I/O</b>	1 Micro SD card slot 1 miniPCIe slot 1 Micro SD/SPI boot switch
<b>Power Supply</b>	5V DC-in (Typical: 6.7W)
<b>Operating System</b>	Android 6.0, Linux Kernel 3.14.28
<b>VIA Smart ETK</b>	Watchdog timer, GPIO, UART
<b>Operating Temperature</b>	0°C to 50°C
<b>Operating Humidity</b>	0% ~ 90% @ 45°C (non-condensing)
<b>Storage Temperature</b>	-10°C ~60°C @ 90% (non-condensing)
<b>Vibration Loading During Operation</b>	With onboard eMMC 5Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1hr/axis
<b>Shock During Operation</b>	With onboard eMMC 50G, IEC 60068-2-27, half sine, 11ms duration
<b>Mechanical Construction</b>	Aluminum top cover Metal chassis housing
<b>Mounting</b>	VESA Mount (100mm x 100mm) (Optional)
<b>Dimensions</b>	150mm(W) x 30mm(H) x 125.5mm(D) (5.91" x 1.18" x 4.94")
<b>Weight</b>	0.566kg (1.25lbs)
<b>Compliance</b>	CE, FCC



## Front Panel External I/O



## Back Panel External I/O



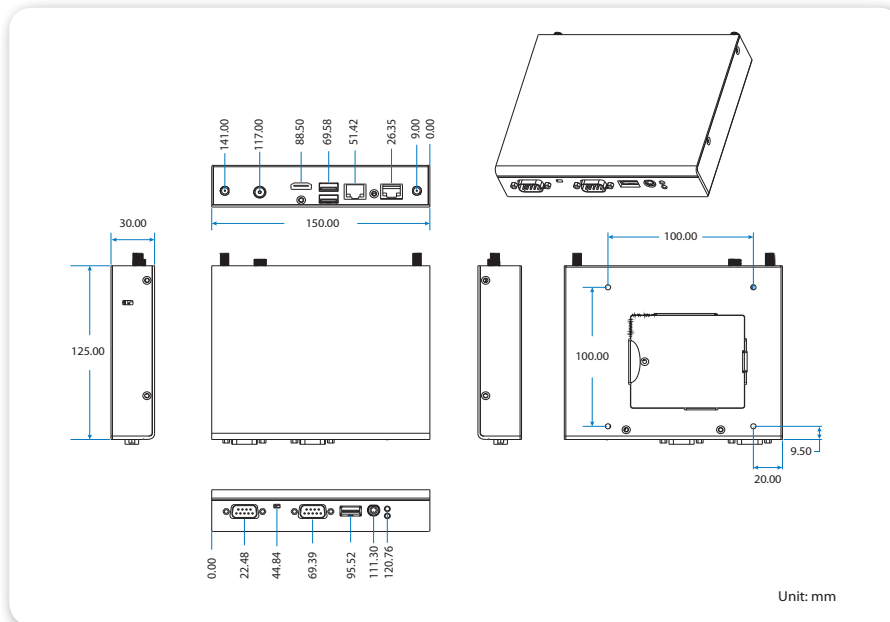
## Ordering Information

Part Number	SoC Frequency	Description
ATC-A820-3D10A2	NXP i.MX 6DualLite Cortex-A9 dual-core SoC @ 1.0GHz	Fanless embedded system with 1.0GHz NXP i.MX 6DualLite Cortex-A9 Soc, 1GB DDR3 RAM, 4GB eMMC, HDMI, 3 USB 2.0, COM, DIO, Gigabit Ethernet, 10/100Mbps Ethernet, miniPCle slot, Micro SD card slot, miniPCle slot, 5V DC-in

## Optional Accessories

Wireless Accessories	
Part Number	Description
00GO27100BU2B00D0	VNT9271BU0DB IEEE 802.11 b/g/n USB Wi-Fi dongle
EMIO-2531-00A1	VAB-820-W-M IEEE 802.11 b/g/n miniPCie Wi-Fi & Bluetooth module with assembly kit and antenna
EMIO-2550-00A1	3.75G HSPA/UMTS Mobile broadband full size miniPCle module with GPS, SIM card slot, assembly kit and antenna

## Dimensions



## Packing List

Items
ARTIGO A820 system
AC-to-DC adapter
Power cord (USA type)
Console cable
Screw pack for miniPCle card
Rubber foot pack