

VIA

# ARTiGO A820

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

## Features

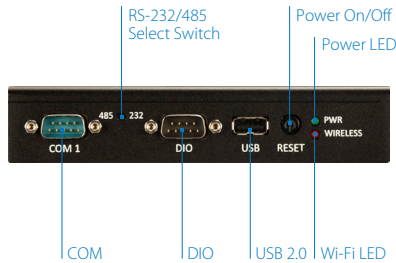
- Fanless and ultra slim low profile (only 3cm height)
- Powered by Freescale™ i.MX 6DualLite Cortex-A9
- Supports integrated graphics processing (GPU) for 3D/2D graphics acceleration
- Dual Ethernet support and wireless connectivity options available
- Linux BSP and customization services available



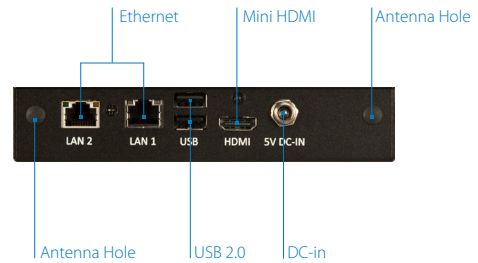
## Specifications

|                                           |                                                                                                                                                                                                                           |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Model Name</b>                         | <b>ARTiGO A820</b>                                                                                                                                                                                                        |
| <b>Processor</b>                          | 1.0GHz Freescale™ i.MX 6DualLite ARM Cortex-A9                                                                                                                                                                            |
| <b>System Memory</b>                      | 1GB DDR3 SDRAM onboard                                                                                                                                                                                                    |
| <b>Storage</b>                            | 4GB eMMC Flash memory<br>Micro SD Card                                                                                                                                                                                    |
| <b>Graphics</b>                           | Vivante GC880<br>2 Independent, integrated 3D/2D graphics processing units<br>Graphics engine support OpenGL® ES 2.0, OpenVG 1.1 hardware acceleration<br>Support MPEG-2, VC-1 video decoding up to 1080p                 |
| <b>LAN</b>                                | Micrel KSZ9031RNX Gigabit Ethernet Transceiver with RGMII support<br>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<br>1 DIO port supports 8 GPIO (4 GPI+4 GPO)<br>1 COM port for RS232/485 supports 8-wire DTE mode with isolation feature<br>1 RS232/485 select switch for COM port<br>1 Reset button<br>1 Power & Wi-Fi LED |
| <b>Back Panel I/O</b>                     | 1 Mini HDMI port<br>2 USB 2.0 ports<br>1 Gigabit Ethernet port<br>1 10/100Mbps Ethernet port<br>2 Antenna holes for 3G or Wi-Fi<br>1 DC-in jack power input connector                                                     |
| <b>Bottom Panel I/O</b>                   | 1 miniPCIe slot<br>1 Micro SD card slot<br>1 Micro SD/SPI boot switch                                                                                                                                                     |
| <b>Watchdog Timer</b>                     | Integrated watchdog timer supports two comparison points. Each comparison point can interrupt ARM core, 2nd comparison point capable of generating external interrupts on WDOG line                                       |
| <b>Power Supply</b>                       | 5V DC-in (Typical: 6.7W)                                                                                                                                                                                                  |
| <b>Operating System</b>                   | Linux Kernel 3.0.35                                                                                                                                                                                                       |
| <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<br>5Grms, IEC 60068-2-64, random, 5 ~ 500Hz, 1hr/axis                                                                                                                                                   |
| <b>Shock During Operation</b>             | With onboard eMMC<br>50G, IEC 60068-2-27, half size, 11ms duration                                                                                                                                                        |
| <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>Mounting</b>                           | VESA Mount (100mm x 100mm) (Optional)                                                                                                                                                                                     |

### Front Panel External I/O



### Rear Panel External I/O



### Specifications

|                         |                                             |
|-------------------------|---------------------------------------------|
| Model Name              | ARTiGO A820                                 |
| Mechanical Construction | Aluminum top cover<br>Metal chassis housing |
| Compliance              | CE/FCC                                      |

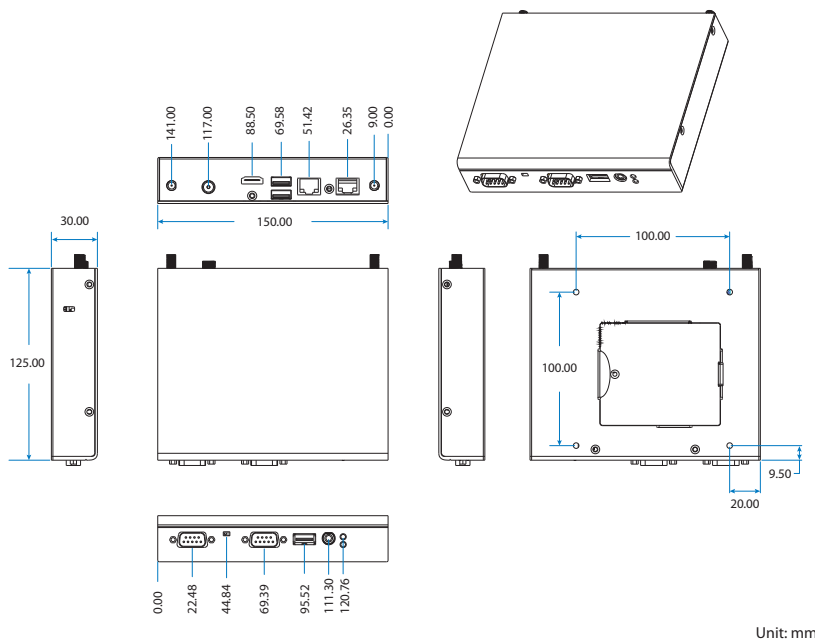
### Ordering Information

| Part Number     | SoC Frequency                                             | Description                                                                                                                                                                                                   |
|-----------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ATG-A820-3D10A1 | Freescale™ i.MX 6DualLite<br>Cortex-A9 dual-core @ 1.0GHz | Fanless embedded system with 1.0GHz Freescale™ i.MX 6DualLite Cortex-A9 Soc, 1GB DDR3 RAM, 4GB EMMC, Mini HDMI, 3 USB 2.0, COM, DIO, Gigabit Ethernet, 10/100Mbps Ethernet, Micro SD Card, miniPCIe, 5V DC-in |

### Optional Accessories

| Wireless Accessories |                                                                                       |
|----------------------|---------------------------------------------------------------------------------------|
| Part Number          | Description                                                                           |
| 00GO27100BU2B0OD0    | VNT9271BU0DB IEEE 802.11 b/g/n USB Wi-Fi dongle                                       |
| EMIO-1541-00A1       | VNT9485 IEEE 802.11 b/g/n miniPCIe Wi-Fi module with assembly kit and antenna         |
| EMIO-2550-00A1       | 3.75G HSPA/UMTS Mobile broadband full size miniPCIe module with GPS and SIM card slot |

### Dimensions



### Packing List

- ARTiGO A820 system
- AC-to-DC adapter
- COM cable
- Power cord (USA type)
- Rubber feet
- Screw pack for miniPCIe card

# Mouser Electronics

Authorized Distributor

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[ATG-A820-3D10A1](#)