

AES-IMX8E

NXP i.MX 8M Plus Quad-core Cortex-A53/M7 IoT Gateway Controller



Features

- Powered by NXP i.MX 8M Plus Quad Cortex-A53/M7 Processor
- Onboard DDR4L 4GB / eMMC 32G
- 2 x serial port(RS232/485/422)
- CAN-FD x 2CH
- Mini PCIe connector (For RF Module) x 2
- Support RTC, TPM 2.0
- Wide Voltage DC 9V-36V
- Wide Temperature -20 °C ~ 70 °C
- Pre-Install Linux Debian 11, Yocto kirkstone 5.15, Ubuntu 22.04



Specification

System

| | |
|------------------|--|
| Processor | NXP i.MX 8M Plus Quad-core Cortex-A53/M7 Processor |
| Memory | Onboard DDR4L 2GB (Optional 4GB) |
| Storage | eMMC 16GB (Optional 32GB) |
| Real time clock | RTC x 1, with 3V CR2032 Lithium battery |
| Cellular | Mini PCIe Connector x 1 (USB signal) |
| Security | TPM 2.0 |
| Wireless LAN | Mini PCIe Connector x 1 (PCIe, USB signal) |
| Operating System | Debian 11, Yocto kirkstone 5.15, Ubuntu 22.04 |
| LED indicators | Programmable LED control x 7 |

Power Supply

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|-------------------|----------------------|
| Power Requirement | 9-36 VDC |
| Power Consumption | 9.36W (Full Loading) |
| MTBF (Hours) | 479,374 |

Environmental and Mechanical

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|----------------------|---|
| Dimension | TBD |
| Weight | TBD |
| Mouting/Installation | - |
| Operating Temp. | -4 °F ~ 158 °F (-20 °C ~ 70 °C) |
| Storage Temp. | -40 °F ~ 176 °F (-40 °C ~ 80 °C) |
| Operating Humidity | 10% ~ 95% relative humidity, non-condensing |

Interface

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|-----------------|--|
| Serial Port | 2 x RS-232/422/485, Terminal Block |
| CAN bus | 2 x CAN-FD, Terminal Block |
| Ethernet | 2 x GbE LAN, RJ-45 |
| USB | 2 x USB 3.0, Type A 1 X Micro USB (Debug) |
| Display | 1 x HDMI 2.0 (Output) |
| Power Connector | 2 Pin 3.81mm Pitch Phoenix Connector |
| Debug Port | Micro USB x 1 |
| Expansion Slot | SIM card slot x 1 Micro SD slot x 1 |

Certification

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|-------------|----------|
| Regulations | CE, FCC |
| Carrier | Planning |

Ordering Information

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|------------|--|
| AES-IMX8E1 | Quad-Core Cortex-A53 1.6GHz, 2GB RAM, 16GB eMMC, DC 9-36V |
| AES-IMX8E2 | Quad-core Cortex-A53, 1.6GHz, 4GB RAM, 32GB eMMC, DC 9-36V |
| AES-IMX8E3 | Quad-core Cortex-A53, 1.6GHz, 8GB RAM, 32GB eMMC, DC 9-36V |