



uCPE Modular Universal CPE

uCPE Modular Universal CPE Based on Intel® Atom™ C3000

Product Description

Silicom's uCPE based on the Intel® Atom C3000 product line is a highly flexible yet low-cost network edge device that brings the agility of modular LAN, WAN, management, and compute to cost-sensitive applications in SD-WAN, CPE, security, small cell, and IoT.

With a new type of modularity designed specifically for cost and agility, uCPE is the ideal platform upon which to deploy next-generation edge applications.



Key Features

- Low-cost modular architecture consolidates multiple functions into a single box, reducing footprint, power, and complexity.
- Mix-and-match LAN, WAN, management, and compute modules allow uCPE features to be tailored to unique customer needs.
- Compliant with OCP uCPE 2.1 specifications.
- Silicom's MicroBMC provides secure remote management, software/firmware update, and phone home zero touch provisioning.

Technical Specifications

| General Technical Specifications | |
|----------------------------------|---|
| CPU | C3558, 4 cores, Base Freq. 2.2GHz, 8MB, TDP 16W |
| BIOS | Coreboot |
| BIOS Flash | SPI |
| Operating System | Support Linux, ship without OS |
| Memory | 8GB Memory Down with ECC. (Platform supports up to 16GB memory down and an optional SODIMM that also supports up to 16GB) |
| Storage | 64GB eMMC |
| Internal Switch | 2x2.5Gb KR between CPU and Switch 1x1GbE between uBMC and Switch |
| External port Switch | Marvell 88E6190X (X required for SFP) 4x1GbE 2x1GbE (POE+) 2xSFP |

| | |
|------------------------------|--|
| Host Mgmt. | 1GbE RJ45 on Management Card. Shared with BMC. Intel i210. 1GbE Between uBMC and Switch |
| USB 3.0 | 2xFront, 2xInternal |
| Serial Console | RJ45 RS232 Console |
| LTE | M.2 Key-B, support 3042 Card. Externally accessible SIM card supported. Or Mini PCIe slot with externally accessible SIM card. LTE, is not part of BOM. |
| WiFi | Mini PCIe Slot for WiFi. Wifi is not part of BOM, |
| M.2 Expansion | M.2 Key B with support up to 30x110mm. Currently used for M.2 Storage Note: There is a board population option to support USB to the card for the possible IoT card. The default build option is not to support this feature. |
| BMC | BMC. See uBMC specification for additional details |
| TPM | TPM 2.0 |
| Power | 12V@60W External Power Adapter with locking connector. Dying Gasp supported on BMC 54V@65W External Power Adapter with locking connector for POE+ ports |
| LED's | Management card support three tri-color configurable LED's (red, green, blue) |
| Form Factor | Desktop Form Factor (WxDxH) = 223x305x44mm Supports two side by side in 19" rack Rack Mount Option Wall Mount Option Branding Option |
| Weight | 2.2kg (77.60oz) without optical modules |
| Power Consumption | Maximum <ul style="list-style-type: none"> • Input 1:110Vac / 1.8A ~ 240Vac / 0.8A, 50Hz to 60Hz • Output 1: 12V / 5A • Input 2: 110Vac / 1.8A ~ 240Vac / 1.2A, 50Hz to 60Hz Output 2: 54V / 1.2A Typical: <ul style="list-style-type: none"> • Input 1:110Vac / 0.47A ~ 240Vac / 0.3A, 50Hz to 60Hz • Output 1: 12V / 2.12A • Input 2: 110Vac / 1.2A ~ 240Vac / 0.8A, 50Hz to 60Hz Output 2: 54V / 1.1A The total power consumption of the card depends on user application |
| Cooling | 12VDC 40mmx40mmx20mm 10.1 CFM FAN. Built-in thermal protection |
| Sensors/Monitors | Thermal monitors Critical Error Detection Voltage monitors Current protection |
| Operating Temperature | 0°C – 40°C (32°F – 104°F) |
| Storage | -40°C–65°C (-40°F–149°F) |
| Regulation | CE EN 55032: 2012 + AC: 2013; EN55024: 2010, FCC Subpart B Class B, CB Scheme IEC 60950-1:2005 (second Edition) + Am 1:2009 + Am 2:2013, ROHS requirements |
| MTBF* | 143887.77 hours * According to Telcordia SR-332 Issue 4. Environmental condition – GB (Ground, Fixed, and Controlled). Ambient temperature 40°C |

Order Information

Silicom has available standard configuration uCPE systems for immediate customer usage. uCPE is easily reconfigured and customized across a wide range of customer specifications during production.

| P/N | Description | Notes |
|-----------------------|---|--|
| 80500-0150-G05 | Shippable Kit: uCPE, Desktop, XS Module, Empty Right Slot, C3558 (4C), DDR4 8GB ECC, EMMC 64GB, including +12V, +54V Power supplies | Top level – Shippable kit, including packaging, GA |