



### uCPE Madrid Desktop

#### uCPE Based on Intel Atom® C3000 Processor (3958)

#### Product Description

Silicom's uCPE are based on the Intel Atom® C3000 Processor (3958) product line is a highly flexible network edge device that brings the agility of modular LAN, WAN, management, and compute to cost-sensitive applications in SD-WAN, uCPE, security, small cell, and IoT. The Madrid platform has two form factors: Desktop and 1U. The 1U support PCIe add in card.



#### Use Cases:

- Fixed Wireless Access (FWA)
- Secure Access Service Edge (SASE)
- WAN Edge gateway

#### Technical Specifications

General Technical Specifications – Madrid uCPE Desktop Specification	
<b>CPU</b>	Intel Atom® C3958/16C/2.0 GHz/TDP 31W Intel Atom® C3858/12C/2.0 GHz/TDP 25W Intel Atom® C3758/8C/2.2 GHz/TDP 25W Intel Atom® C3558/4C/2.2 GHz/TDP 16W Intel Atom® C3338/2C/1.5 GHz/TDP 8.5W
<b>BIOS</b>	Coreboot
<b>BIOS Flash</b>	SPI – Dual redundant
<b>Operating System</b>	Linux
<b>Memory</b>	Two Channels, Memory Down, SODIMM, Up to 32GB, ECC Support, 2400 MTs
<b>Storage</b>	Soldered down eMMC, M.2 M-Key SATA (supports for 2230/42/60/80), J13 M.2 B-Key SATA or PCIe x1G3( HSIO config) / USB2 and USB3 (support for 2230/42/60/80), J22 1xSATA for 2.5" SSD/HDD: J17 1xSATA DOM ( SATA DOM supports +5V): J16
<b>Ethernet ports</b>	Up to 8 ports: 2 x1GbE RJ45 x via C3000 through Marvell 88E1514P,

	<p>4x 1GbE RJ45 via i350AM4 (with optional +2x1GbE (POE+), or 2x 1GbE RJ45 w/ i350AM2 no POE+.</p> <p>2x 1GbE Combo (UTP or SFP), 2x via C3000 through Marvell 88E1543, SFP slots support 3W each.</p> <p>Supports for SR-IOV</p>
<b>Console</b>	RS232 RJ45 (Cisco pinout) on front panel
<b>USB 3.0</b>	1x USB 3.0 on front panel
<b>mPCIe</b>	2x mini PCIe expansion slots
<b>PCIe Expansion</b>	Not supported
<b>LTE</b>	<p>mini-PCIe Slot. PCIe x1G3 or USB 3.0 and USB 2.0. Externally accessible SIM slot on CS/PCB. J9</p> <p>M.2 LTE Slot (B-Key). USB 3.0 USB 2.0 Externally accessible SIM slot on PS/ PCB J30</p>
<b>WiFi</b>	Support for 2x mini-PCIe slots which supports simultaneous dual-band
<b>TPM</b>	TPM 2.0
<b>Buttons</b>	<p>Reset Button (programmable through 8051 MCU)</p> <p>Short tap (&lt;7 seconds) will cause platform reset.</p> <p>Long tap (&gt;7 seconds) will be used for resetting to defaults.</p> <p>Power Button (programmable through 8051 MCU)</p> <p>Very short tap filter (&lt; 2 seconds) – tap shorter than 2 second will be filtered</p> <p>Short tap (&gt;2 seconds ) – initiate graceful shutdown to host CPU</p> <p>Long tap (&gt;13 seconds) – hard shutdown for immediate power off</p>
<b>LED's</b>	<p>Tri-color Power LED</p> <p>Tri-color Status LED (programmable)</p> <p>LED's integrated in RJ45's</p>
<b>Other Hardware</b>	<p>Battery for RTC</p> <p>Programmable FAN controller</p> <p>Watchdog</p>
<b>Form Factor</b>	<p>Desktop Form Factor, (WxDxH) = 222x241x44mm</p> <p>Rack Mount option</p> <p>Wall Mount option</p> <p>OEM branding option</p>
<b>Power</b>	<p>12V@90W External Power Adapter with locking connector.</p> <p>Optional addition 12V@90W External Power Adapter with locking connector for redundancy.</p> <p>Optional: 54V@65W External Power Adapter with locking connector for POE+ ports</p> <p>Optional: Dying Gasp</p>
<b>Cooling</b>	Number of Fans TBD, Design supports 2 FAN
<b>Sensors/Monitors</b>	<p>Thermal protection</p> <p>Critical Error Detection</p> <p>Voltage monitors</p> <p>Current protection</p>
<b>Operating Temperature</b>	0°C – 40°C
<b>Storage Temperature</b>	-20°C – 70°C

<b>Regulation</b>	EC Class A FCC Class A Compliance with European directives for EMC, Low Voltage, RoHS and WEEE EMC-Compliance and test report for ETSI ES 201 468 Level2, EN55022, EN55024, EN 300 386 Compliance and test report for IUT-K21 enhanced Safety: compliance and test report for EN 60950-1
<b>MTBF*</b>	TBD * According to Telcordia SR-332 Issue 2. Environmental condition – GB (Ground, Fixed, and Controlled). Ambient temperature 40°C

## Order Information

P/N	Description	RMN:	RTN:	Notes
<b>90500-0151-G03</b>	uCPE, Desktop/C3758(8C)/16GB DDR4 w/ECC/ 128GB M.2/6x1GbE	IA3001	IA3001.01	w/o Dying Gasp, including +12V Power supply
<b>90500-0151-G01</b>	uCPE, Desktop/ C3558(4C)/8GB DDR4 w/ECC/ 64GB EMMC/6x1GbE	IA3001	IA3001.02	w/o Dying Gasp, including +12V Power supply
<b>90500-0151-G04</b>	uCPE, Desktop/C3338(2C)/4GB DDR4 w/ECC/ 32GB EMMC / 6x1GbE	IA3001	IA3001.03	w/o Dying Gasp, including +12V Power supply
<b>90500-0151-G14</b>	uCPE, Desktop/C3338(2C)/ 4GB DDR4 w/ECC/32GB M.2 /8x1Gb (2- POE ports)	IA3001	IA3001.04	w/o Dying Gasp, including +12V Power supply, including +54V Power supply