Marbella 1U Networking Appliance Series

Universal CPE supporting 4,8, and 10-core Intel® Xeon® D-1700 processors

Product Description

Marbella 1U Networking Appliance features Next-gen Intel® Xeon® D-1700 processor designed to deliver server-class computing, cyber security, and high-bandwidth with built-in AI acceleration Deep Learning Boost and powerful real-time capabilities. The Marbella is designed for fast network processing and cutting-edge developments including next-generation WAN optimization and security.

The Marbella platform is a groundbreaking solution that creates an excellent platform for developing applications in the fields of networking uCPE SD-WAN, SASE, SSE, 5G DU and IoT Edge Computing. Its outstanding features allow it to improve packet processing performance while also providing network security within virtual network functions.

Based on Intel®'s Xeon® D-1700, the Marbella Networking appliance can run multiple virtual machines and control systems. With its high capacity support that includes real-time systems as well as Hypervisor Support, it consolidates many different types of workloads providing a one-stop-solution Networking Edge Appliance.

With memory support up to 256GB DDR4 and two NVMe each with x4 PCIe, it provides unparalleled performance and power. With both commercial and industrial temperature options as well as redundant AC or DC power supplies and a short depth enclosure (12"/305mm), it provides a high degree of scalability. Marbella uCPE Networking Appliance features PCIe Expansion for both x16 Gen4 Full-Height 3⁄4-Length and x8 Gen3 Half-Height Half-Length configurations.

Furthermore, the Marbella uCPE Networking Appliance supports LTE/5G and Timesync modules along with BMC in-band support.

With all these features and more, the Marbella 1U Networking Appliance is the ideal solution for any edge computing or remote network requirements.

Key Features:

- Intel® Xeon® D-1700 Platform. Support 4,8, and 10-core CPU SKUs.
- Memory support up to 256GB DDR4
- Supports a Dual x4 PCIe NVMe
- Networking
  - 4x 10G/25G SFP28 (support for 10G RJ45)
  - 4x 1G/10G SFP+
  - 3x 2.5G RJ45
  - 1x 1GbE MGMT
- Commercial and Industrial Temperature Options
- Redundant AC or DC Power Supplies
- Short Depth Enclosure (12"/305mm)
- PCIe Expansion
  - x16 Gen4 Full-Height ¾-Length
  - x8 Gen3 Half-Height Half-Lenth
- Support LTE/5G and Timesync modules
- BMC with in-band support

Technical Specifications

General Technical Specifications	
CPU:	Intel® Xeon® D-1700. Support for 4,8, and 10-core SKUs
Memory:	3x Channels DDR4, Supports up to 256GB
Storage:	- eMMC (4GB to 256GB) - Two NVMe (x4 PCIe) - Two 2.5" SATA
Network:	4x 25G/10G SFP28 (SKU and Configuration Dependent) 4x 10G/1G SFP+ (SKU and Configuration Dependent) 3x 2.5GbE (Intel i226) 1x 1GbE (BMC Management)
I/O:	2x USB3/2 - Console: Cisco RS232 RJ45
PCIe Expansion:	- x16 PCIe Gen4 Full Height, ¾ Length Card - x8 PCIe Gen3 Half Height, Half Length Card
Cellular (Optional card)	- Supports optional wireless modules (4G and 5G options) - Antenna access through extender
TimeSync (Optional card)	- External SMA source inputs are 10MHz, PPS, and GNSS/GPS - External SMA outpus are 10MHz and PPS
BMC:	- AST2620 (no video, option for extended temperature) - NCSI to CPU for optional in-band management - Thermal monitor/fan control (up to 7) - Remote updates - Remote Power Management - Virtual USB - Serial over LAN
Security:	- TPM2.0 - Hardware Root of Trust - Intrusion switch
Other:	- Power / Reset Buttons (programmable) - RGB LED's

BIOS:	• UEFI BIOS (Consider open-source solution) • Optional Redundant BIOS
Power Supply:	• Redundant 500W Pluggable Power Supply • AC and DC Options
Environmental:	• Commercial SKU: 0C to 40C • Industrial SKU: -20C to 65C
Form Factor:	• 12 inches (305mm) Depth • 19" Rackmount

Order Information

P/N	Description
80500-0217-G00-SL00A	uCPE: Marbella 10CE, 48G, NVMe, 2xAC USA
80500-0217-G02-SL00A	Marbella 10C, 64G, NVMe, 2xAC USA
80500-0217-G03-SL00A	uCPE: Marbella 8C, 32G, NVMe, 1xAC USA
80500-0217-G04-SL00A	Marbella 4C, 16G, NVMe, 1xAC USA