

Multi-Core MIPS64® Processors

CN70XX Enterprise WLAN IEEE 802.11AC Access Point Reference Board and Reference Design Kit

Product Brief



OVERVIEW

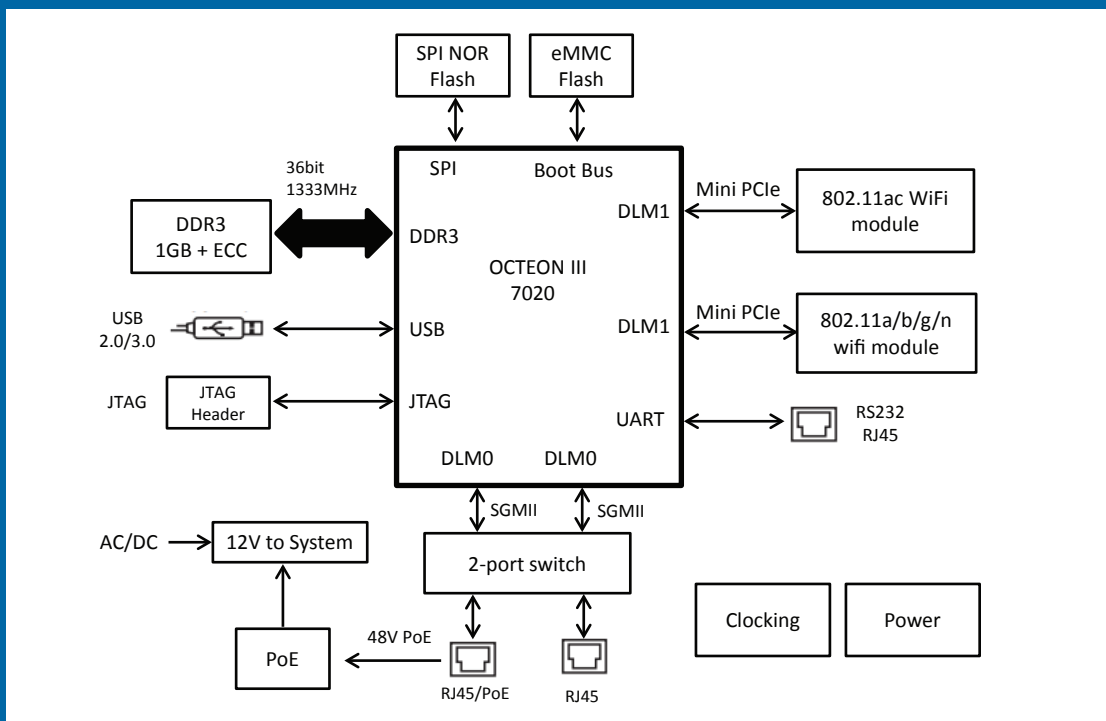
The Cavium CN71XX WLAN Enterprise access point is a complete Production-ready, bill of materials (BOM)-optimized solution based on OCTEON III CN70XX low-power multi-core processor. The solution features single or dual 802.11 ac and 802.11 a/b/g/n 3 x 3 MIMO radios through miniPCI Express interface, dual Gigabit Ethernet ports, USB 3.0 port and Power over Ethernet (PoE).

Cavium's OCTEON III single, dual and quad-core SoCs CN70XX deliver an unprecedented amount of compute performance per chip enabling superb throughput and headroom to handle a broad range of applications including enterprise WLAN access point. These low-power processors are the world's first to include up to four MIPS64® cores with full hardware virtualization, Deep Packet Inspection (DPI), Packet processing, Security and QOS capabilities in a highly integrated System on a Chip.

Feature Highlight:

- OCTEON CN7130LP 4-core 1GHz low power quad core processor
- Suitable for fanless design with plastic enclosure
- 2 x miniPCI Express (PCIe) connector for 802.11 a/b/g/n dual band cards and 801.11ac cards
- Support QCA9880/QCA9890 and QCA9850 WiFi chipset
- 2 x 10/100/1000 Based-T ports. One port supports PoE.
- 1 GB DDR3 SRAM
- 1 x USB 3.0 ports
- Cost-optimized BOM by hardware ODMs
- Comprehensive software packages including device drivers, Cavium SDK 3.1 and ADK 3.1 supporting Linux 3.10.

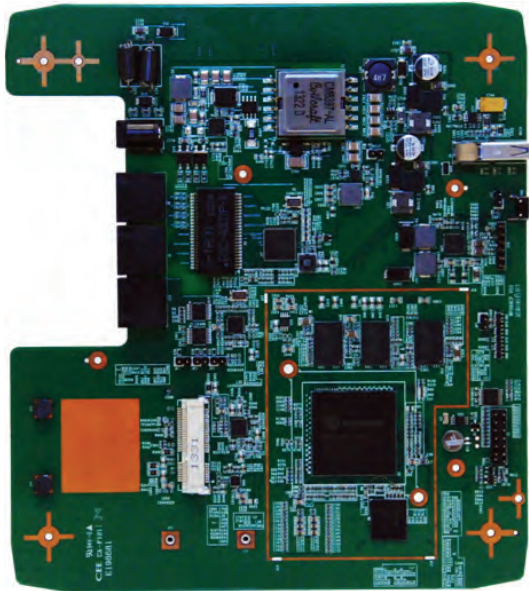
Reference Design Block Diagram



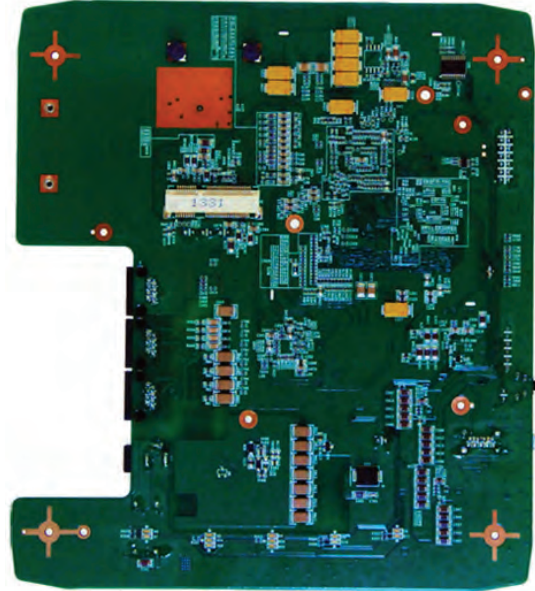
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Ordering Information

Ordering number	Description	Deliverables
CN7000-REF-AP-BOARD	CN70XX enterprise access point reference board (enclosure not included)	<ul style="list-style-type: none"> - PCB board (6.5in x 7.5in) - 12V power supply - RS232 serial cable - QCA 802.11ac WiFi mini PCIe module - QCA 802.11n WiFi mini PCIe module - 2.4G and 5G antenna - Documentation (Quick start guide, User guide, Software release note) - Optional plastic casing
CN7000-RDK-AP	CN70XX enterprise access point reference design kit	<ul style="list-style-type: none"> - Reference design files (schematics, layout, BOM, enclosure and thermal simulation) - Cavium SDK 3.1