



Providing capacity and coverage needed for high-efficiency wireless platforms

# NXP® 88W9064 4x4 Wi-Fi® 6 Dual Band with Bluetooth® 5 SoC

The NXP 88W9064 SoC family of Wi-Fi access solutions provides an advanced 802.11ax feature set and draws on the strength of our beamforming technologies. Integrated MU-MIMO and OFDMA solutions help increase capacity for downlink and uplink traffic to allow for overall improved network utilization while meeting the growing demands of user applications. standard compliance.

## PRODUCT OVERVIEW

The NXP 88W9064 SoC family of Wi-Fi access solutions provides an advanced 802.11ax feature set and draws on the strength of our beamforming technologies. Integrated MU-MIMO and OFDMA solutions help increase capacity for downlink and uplink traffic to allow for overall improved network utilization while meeting the growing demands of user applications.

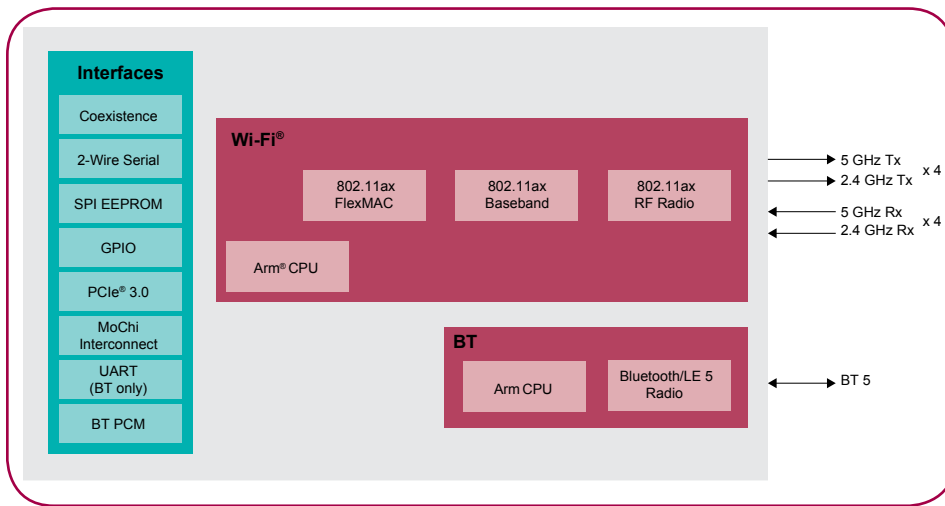
Other features of the 88W9064 family include integrated Bluetooth 5 and precision device location function that provides accurate positioning within 1 meter and 10 degrees. Bluetooth 5 supports classic Bluetooth and Bluetooth Low Energy with features such as long-range and direction finding using angle of arrival (AoA) and angle of departure (AoD). The added Bluetooth capability can be leveraged to provide a more cost-effective and complete solution for users' connectivity needs.

## TARGET APPLICATIONS

- ▶ 88W9064 SoC
  - Enterprise & retail access points
  - Broadband gateway
  - Fixed wireless
- ▶ 88W9064S SoC
  - Service provider set-top box
  - Over-the-top set-top box



## 88W9064/88W9064S BLOCK DIAGRAM



## KEY FEATURES AND BENEFITS

FEATURES	88W9064	88W9064S
Wi-Fi®	<ul style="list-style-type: none"> <li>IEEE® 802.11ax, 802.11ac Wave 2, 802.11a/b/g/n</li> <li>20/40/80/160 (80+80) MHz channel bandwidths</li> <li>2.4 Gbit/s peak data rate</li> <li>Implicit and explicit beamforming</li> </ul>	<ul style="list-style-type: none"> <li>IEEE 802.11ax, 802.11ac Wave 2, 802.11a/b/g/n</li> <li>20/40/80/160 (80+80) MHz channel bandwidths</li> <li>1.2 Gbit/s peak data rate</li> <li>Implicit and explicit beamforming</li> </ul>
802.11ax	<ul style="list-style-type: none"> <li>Downlink OFDMA and MU-MIMO</li> <li>Uplink OFDMA and MU-MIMO</li> <li>1024 QAM</li> <li>Spatial re-use</li> <li>Range extension</li> <li>DCM</li> </ul>	<ul style="list-style-type: none"> <li>Uplink and Downlink OFDMA and MU-MIMO</li> <li>1024 QAM</li> <li>Spatial re-use</li> <li>Range extension</li> <li>DCM</li> </ul>
Flex MAC	<ul style="list-style-type: none"> <li>Adaptable architecture for standards evolution</li> <li>Management of high number of traffic queues</li> <li>Advanced scheduling</li> </ul>	<ul style="list-style-type: none"> <li>Adaptable architecture for standards evolution</li> </ul>
Bluetooth®	<ul style="list-style-type: none"> <li>Support for Bluetooth 5</li> <li>Direction finding</li> <li>Long range</li> <li>Co-existence arbitration</li> </ul>	<ul style="list-style-type: none"> <li>Support for Bluetooth 5</li> <li>Direction finding</li> <li>Long range</li> <li>Co-existence arbitration</li> </ul>
Dedicated In-Service Monitoring	<ul style="list-style-type: none"> <li>Concurrent spectrum scanning</li> <li>Zero wait DFS</li> </ul>	
Precision Location	<ul style="list-style-type: none"> <li>Distance: within 1 meter</li> <li>Angle: within 10 degrees</li> </ul>	<ul style="list-style-type: none"> <li>Distance: within 1 meter</li> <li>Angle: within 10 degrees</li> </ul>
Host Interfaces	<ul style="list-style-type: none"> <li>MCi (2-Lane)</li> <li>PCIe® 3.0 (2-Lane)</li> <li>High-Speed UART (for Bluetooth only)</li> </ul>	<ul style="list-style-type: none"> <li>MCi (2-Lane)</li> <li>PCIe 3.0 (2-Lane)</li> <li>High-Speed UART (for Bluetooth only)</li> </ul>

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