



5G Integrated Small Cell

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The Integrated Small Cell (ISC) in many ways is a size, power, and cost-optimized version of the larger, traditional, all-in-one base stations. Integrated small cells are mostly used in densely populated urban areas, where coverage near the macro edges and providing enough capacity to high numbers of mobile users can be challenging. These “infill” small cells can be deployed on buildings and street lights and fixtures as well as on traditional cell towers. This smaller version gNode B allows for cost efficient deployment.

Integrated small cells are also a key technology for enabling private 5G enterprise and industrial networks, where 5G low latency features support manufacturing and factory automation and the 5G CBRS and industrial spectrum supports reliable connections in healthcare, retail, hospitality, aviation, and maritime use cases.

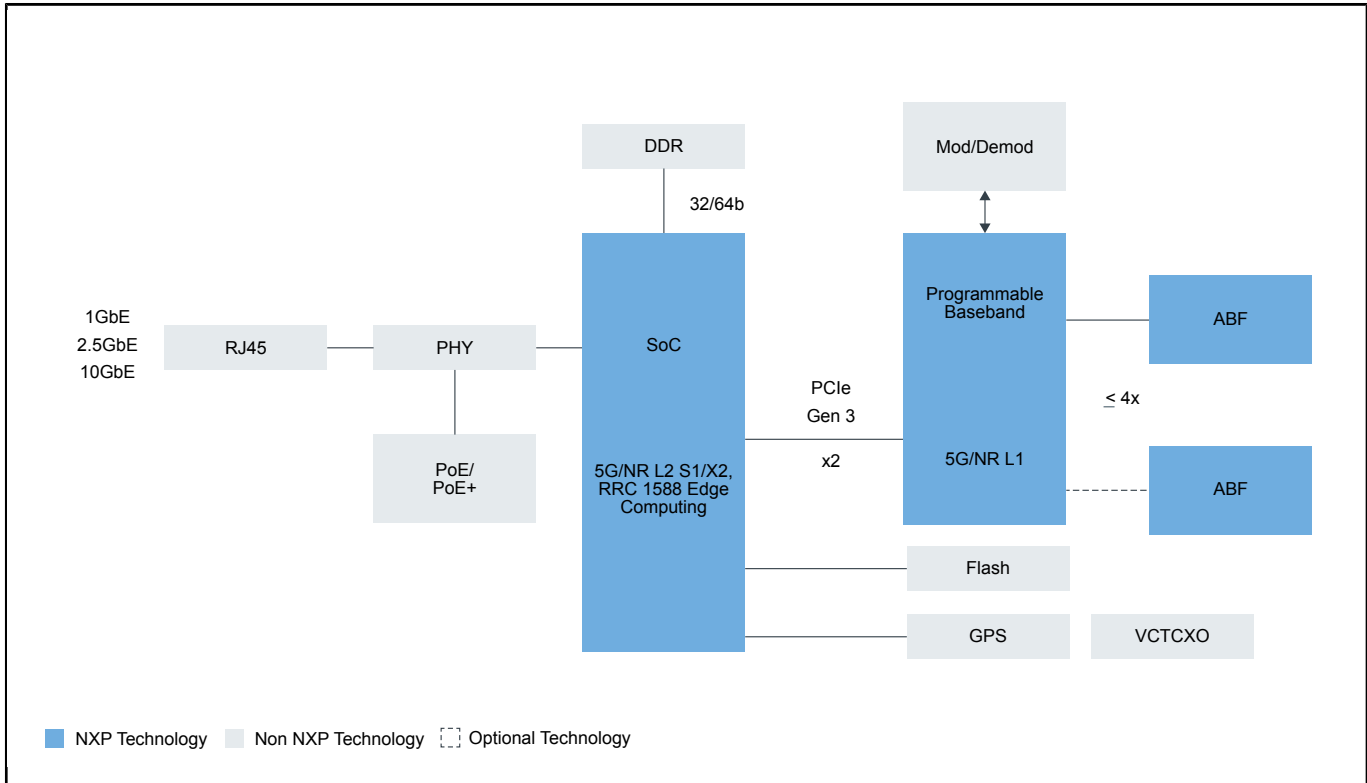
NXP’s Integrated Small Cell solutions resolve two major issues:

- Broad coverage, good spatial diversity and high performance with a choice of FR1 (sub 6 GHz) ecosystem radio solutions: up to 4 transmit, 4 receive antenna configurations, TDD and FDD support, higher power class support and 100 MHz channel bandwidth.
- Cost effective mmWave configurations for world-wide bands, high performance EIRP options, proven multigigabit throughput.

NXP’s Integrated Small Cell offers:

Software defined radio (SDR), that allows to choose optimized software algorithm for the ISC used cases and brings feature flexibility. Open RF interface optimized for best in class price, power and performance for both sub 6 Ghz and mmWave applications. Network grade products, that supports physical robustness and product longevity guarantees.

5G Small Cell Block Diagram



Recommended Products for 5G Small Cell

SoC	<ul style="list-style-type: none"> • Layerscape® 1046A and 1026A Processors
Programmable Baseband	<ul style="list-style-type: none"> • Layerscape® Access LA1200 Programmable Baseband Processor • Layerscape® 1043A and 1023A Processors
ABF	<ul style="list-style-type: none"> • MMW9002KC: 26.5-29.5 GHz 4-Channel Analog Beamforming Integrated Circuit • MMW9004KC: 24.25-27.5 GHz 4-Channel Analog Beamforming Integrated Circuit • MMW9012K: 26.5 GHz–29.5 GHz 4-Channel Dual-Polarized Analog Beamforming Integrated Circuit • MMW9014K: 24.25 GHz–27.5 GHz 4-Channel Dual-Polarized Analog Beamforming Integrated Circuit

View our complete solution for [5G Integrated Small Cell](#).

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