

5G System-On-Chip (SoC) Small Cell (5GSC-200)



Elevating Indoor 5G Immersion

A first-of-its-kind in Singapore, the 5G System-On-Chip (SoC) Small Cell is designed for a robust, high performance and sustainable deployment of 5G connectivity at scale.

The 5G SoC Small Cell is highly scalable and can accommodate the expansion and densification of indoor networks as demand grows. This versatility translates into the ability to support various deployment scenarios, ranging from large office buildings and shopping malls to stadiums, and many other types of indoor venues.

By combining multiple functionalities into a single, compact and energy-efficient device, our 5G SoC Small Cell ensures seamless integration into existing indoor infrastructures, underpinned by easy configuration and management.

Application Scenarios

- Smart factories & manufacturing
- Hospitals & healthcare environments
- Retail & commercial spaces
- Transportation platforms & hubs
- Schools & learning environments

Key Features

- **High Performance**
4T4R gNodeB offers high data capacity throughputs for up to 64 active devices. Supports multi-carrier aggregation of up to 100MHz bandwidth each.
- **Low Power Consumption**
Optimally efficient device provides a sustainable and cost-effective solution for scalable deployment.
- **Fully Flexible & Programmable Open Architecture**
Virtualised, disaggregated architecture in compliance with 3GPP and O-RAN, adaptable to dynamic requirements.
- **Compact and Lightweight**
Compact and reduced form factor allows for flexible installations.
- **Ease of Operations**
All-In-One architecture allows for easy, plug and play deployment, without the need for additional network equipment.
- **Feature-Rich**
Offers three kinds of time synchronisation methods such as GPS, IEEE 1588v2 and Sync-E solutions.

Technical Specifications

General Specifications	
Band	n78 (3.3 - 3.8 GHz)
3GPP Compliance	Release 15 5G SA (Upgradable to Release 16)
Duplex Mode	TDD
Bandwidth	10MHz, 20MHz, 40MHz, 50MHz, 100MHz
Antenna Type	Internal Antenna / External Antenna
RF Tx Power	24 dBm
MIMO Order	4x4 MIMO
Tx/Rx Path	4T4R
Modulation	DL: 256 QM / UL: 64 QAM
Synchronisation	GPS, IEEE 1588v2, Sync-E
Fronthaul Connectivity	10G SFP+, 10G RJ45
RIC Management	O1 interface: non-RT/ E2 interface: near RT
Active Users	Supporting 64 active users
Physical and Electrical	
Power Supply	12 Vdc
Power Consumption	45 W
Dimensions	210 x 240 x 85 mm
Deployment & Mounting	Wall mount / Ceiling mount
Environmental Consideration	
Ingress Protection	Indoor: IP50
Temperature	0°C ~50°C
Humidity	5 % ~ 95 %