

5G CrowdCell, A Life Enhancing Experience

5G CrowdCell is a fully fledged, open RAN small cell network-in-a-box solution. It uses existing macro 4G networks as backhaul and can be utilized for network-as-a-service (NaaS) deployment, delivering an app-enabled path covering any standard from IoT to 5G.

Introduction

Tiger Lake-The 5G era is upon us. This next generation of mobile communication technology — featuring high bandwidth, low latency and massive connectivity — enables IoT at scale and will revolutionize the way that both people and smart devices communicate.

GIGABYTE and Lime Micro's LimeNET CrowdCell provides the most flexible and future-proof solution for 5G communication. It is low cost, low power consumption, small form factor and deployed with unprecedented ease, to extend coverage and increase capacity of indoor and remote networks alike, while utilizing three key features of 5G to deliver a step change in user experience.

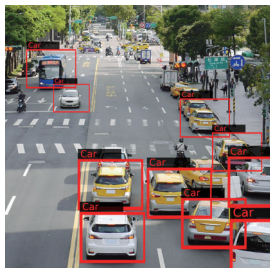


User Scenario



■ VR 360 Video Streaming

The increasing demands placed by ever more advanced multimedia content requires high transmission capacity at high transmission speed. 5G feature, eMBB (Enhanced Mobile Broadband), supports 8K 360 video streaming and [AR/VR performance to significantly enhance the end user experience.](#)



■ Smart Transportation

Self-driving cars can now see and think for themselves, but to fully realise their potential will require a paradigm shift in connectivity. 5G feature, uRLLC (Ultra Reliable Low Latency Communications), will allow vehicles to communicate wirelessly with each other and smart infrastructure, improving both functionality and safety.



■ Smart Cities

5G mMTC (Massive Machine Type Communications) will enable true global scale IoT. Applications include smart buildings and energy grids, real-time enterprise, ubiquitous industrial and consumer IoT, and [eHealth](#). With the potential to deliver new levels of business and eco efficiency, together with increased quality of life for citizens.

Benefits of GIGABYTE & LimeNET 5G CrowdCell



Extendable Network Topology



Network Throughput Enhancement



Reduction of OPEX



Enables Network as a Service Platform



Enables Numerous Applications

■ High Bandwidth

eMBB (Enhanced Mobile Broadband): Support applications requiring high transmission capacity at high transmission speed

■ Low Latency

uRLLC (Ultra Reliable Low Latency Communications): Instant data transmission with a minimum delay of less than 1ms

■ Massive Connectivity

mMTC (Massive Machine Type Communications): A step change for IoT, supporting connections between up to a million devices per square kilometre

Highly Integrated Hardware for 5G Crowdcell

5G Crowdcell is integrated with GIGABYTE industrial motherboard which offers high high-level reliability and long product life-time support in order to fulfil the needs in every aspect of vertical markets.

■ High Performance and Power Efficiency

GIGABYTE is offering industrial motherboards based on embedded Intel platforms for high performance demanding applications. These products support up to 16~64 GB of RAM and fast storage connection, which means they are built to be an economical, space-saving option or a fully-featured solution.

■ Abundant I/O and Expandability

GIGABYTE industrial motherboards have most of I/O interfaces and functionality, offering just about everything the industrial applications might need, including dual GbE LAN ports, USB 3.2 Gen 1 / USB 2.0 ports, multiple COM ports, GPIO (8 bits) & SMBUS header, a TPM connector and so on. On-board connectors enable further expansion, such as 2280 M.2 M-Key for extra storage, 2230 M.2 E-Key for wifi connectivity and PCIe x1 / x16 slots.

■ Longevity Support

Quality, reliability and sustainability are the essential factors in GIGABYTE product design. Our industrial motherboards are offering long-life support, making ideal for long-term projects with large volume.

Related Products

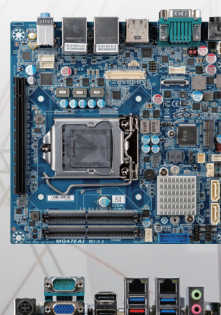
[uATX-H310A](#)



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[mITX-Q47EA](#)



[mITX-4125A](#)

